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JUVENILE LABOUR SUPPLY

1. INTRODUCTION

The Ince Report (Report of the Committee on the Juvenile Employment Service, 1945) drew attention to the future shortage of juvenile labour and its implications in the following words:

> 'We are informed by the Ministry of Labour and National Service that if the Education Act 1944 is fully operative in, say, 10 years' time, the number of boys and girls under 18 years of age available for employment will be approximately half the present number. This estimate takes into consideration the past fall in the birth-rate and the raising of the statutory school-leaving age, but it does not allow for any increased tendency there may be for juveniles to remain in full-time education courses after the statutory age. It is clear that for some years to come there will be a shortage of juveniles and it is very desirable in the national interest that those industries of greatest importance to the nation should not go short.'

The object of this article is to investigate the future supply of juvenile labour in detail and evaluate the influence of the most important of the factors that will determine it.

The total supply is determined by (*a*) the number of juveniles in the population, and (*b*) the number of those who wish to enter employment. The latter is determined both by measurable statutory regulations in regard to education, and by unmeasurable factors such as the numbers who stay at school beyond the leaving age and the numbers who stay at home after leaving school. In this article, we examine each of these factors in turn, showing past trends and the likely future trend. On this basis, we make an estimate of the supply in the next 15 years. Finally we attempt to assess the significance of the changes, and compare them with the manpower position as a whole.

A juvenile is defined for the purpose of this investigation as a boy or girl aged 14 and under 18 years of age. Within this group we have to take account of subdivisions according to sex and age. The boundary at 18 is dictated by convenience, and similar industrial problems may well characterise some of those over 18. Throughout we deal only with Great Britain.

2. The Juvenile Population

Detailed estimates and forecasts of the juvenile population are given in Table I, and, in graphic form, in Figure 1. 1931 is used as the base year as the year in which the Census of Population was taken. For comparative purposes, however, it should be noted that it was a year in the middle of a downward curve, the juveniles concerned having been born in the war years (mid-1913 to mid-1917), when the number of births was low.

The variation of juvenile population is the result of the familiar trend in births in recent years; first, the low births of the 1914–18 war-time years; second, the sharp rise in births in immediate post-war years; then the long decline to the early years of the recent war; finally, the rise in births in the later war years and the especially sharp rise with post-war demobilisation.

Thus the juvenile population, aged 14–18, falling to 1933, rose to a peak in 1937 followed by a long decline; the 1937 peak, the aftermath of World War I, will be closely paralleled by a peak in the early 1960's from World War II. The years immediately ahead of us are years of a further slight fall till 1950, followed by relative stability till the later 1950's.

It will be noted that the trend of juvenile population in the 1930's happens to follow the pattern of trade conditions, so that there was a tendency for supply to be more closely related to demand than might well have been the case. In the coming years, however, the position may well be different; for in the immediate future when economic change and adaptation will create a great demand for juvenile labour, the numbers in the juvenile population will be at their lowest.

On the other hand, the big yearly variations in the juvenile population which characterised the 'thirties will not trouble us so much for some years; but from 1958, when the curve rises, there will be appreciable yearly increases.

The rise in the school-leaving age to 15 has reduced the field from which juvenile workers can be drawn; the further rise to 16 will do likewise. The separate totals of the population aged 15–18 and aged 16–18 are given in Table I and shown in Fig. 1.

One effect of each limitation of the age-group is to reduce the yearly variations, to flatten the curve. Another is to shift the curve to the right, so that variations occur a year later. Otherwise, however, the description of the trends in the 14–18 group applies to those in each of the others.

The two age-groups 15–18 and 16–18 are also shown, in Table II, as index numbers on the base of the population aged 15–18 in 1947, to facilitate comparison with the present. The population aged 15–18 will fall to 7 per cent below 1947 in the lowest year 1950; it will then rise to only 3 per cent below 1947 in 1954–5, and fall slightly again till 1957; in 1958 the rise begins, and in 1962 the population aged 15–18 will be a quarter above its present level.

The population aged 16–18, now about two-thirds of the population aged 15–18, will fall to 62 % in 1950–1, reach 65 % in 1955, and fall again

TABLE I

Estimates and Forecasts of Population of Great Britain, mid-1931 to mid-1963, aged 14–18 (thousands)

Mid-Year	*14–15*	*15–16*	*16–18*	*15–18*	*14–18*	*Index No. (Nos. aged 14–18 in 1931=100)*
1931	678	718	1576	2294	2972	100
1932	603	677	1497	2174	2777	93.4
1933	605	602	1392	1994	2599	87.5
1934	907	604	1277	1881	2788	93.8
1935	856	906	1205	2111	2967	99.8
1936	812	856	1510	2366	3178	106.9
1937	755	812	1759	2571	3326	111.9
1938	740	755	1665	2420	3160	106.3
1939	719	742	1576	2318	3037	102.2
1940	711	721	1501	2222	2933	98.7
1941	690	710	1459	2169	2859	96.2
1942	672	689	1427	2116	2788	93.8
1943	671	672	1395	2067	2738	92.1
1944	669	671	1357	2028	2697	90.8
1945	665	666	1336	2002	2667	89.7
1946	649	664	1327	1991	2640	88.1
1947	622	662	1318	1981	2602	87.5
1948	613	619	1325	1944	2557	86.0
1949	620	610	1263	1873	2493	83.9
1950	627	617	1222	1839	2466	83.0
1951	632	626	1222	1848	2481	83.5
1952	651	632	1240	1871	2522	84.8
1953	650	650	1255	1904	2554	85.9
1954	630	649	1278	1927	2557	86.0
1955	604	629	1295	1924	2529	85.1
1956	649	604	1275	1878	2527	85.0
1957	710	648	1230	1878	2588	87.1
1958	740	709	1250	1959	2699	90.8
1959	743	739	1355	2094	2837	95.5
1960	769	742	1446	2188	2958	99.5
1961	971	769	1478	2247	3218	108.2
1962	—	970	1507	2477	—	—
1963	—	—	1735	—	—	—

The estimates for 1931–1946 are those supplied by the Registrar-General to the Heavy Clothing Working Party (see Report, 1947, p. 86). The estimates and forecasts for 1947–1963 are computed from figures kindly supplied by the Registrar-General for England and Wales. Since the figures only include those born before mid-1947, no assumptions about births are necessary. It is, however, assumed that death rates for the under-45 age groups will fall by 50 % in 40 years. The Registrar-General's figures refer to 1947, 1950 and decennial intervals thereafter, and straight line interpolation has been used to estimate figures for years in between.

It should be noted that the Registrar-General emphasises that these estimates are provisional and probably rather too high. Finally, the estimates refer to England and Wales only, and, to allow for the inclusion of Scotland, have been raised in the proportion 89 : 100.

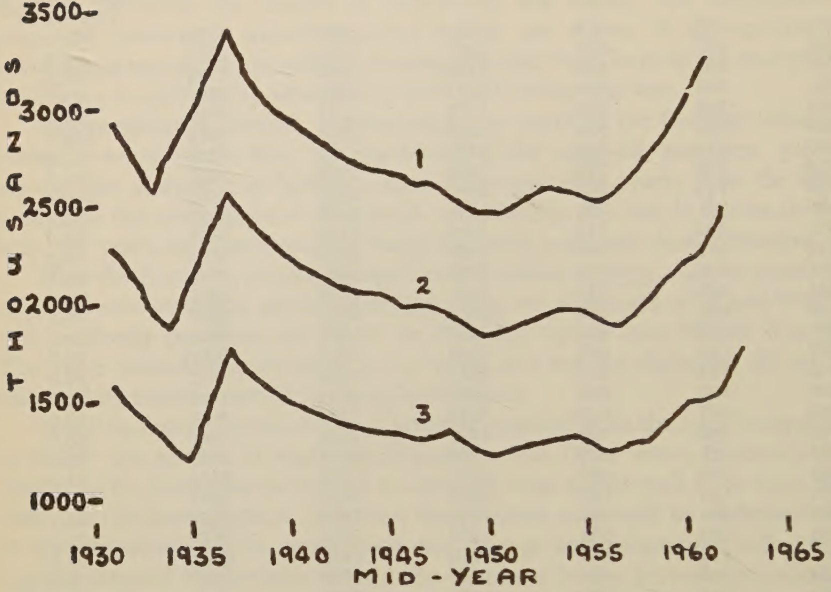
to 62 % in 1957. At the 1963 peak it will be 88 per cent of the present juvenile population of employable age.

In both groups it can be seen clearly that population trends are not of great importance over the next ten years; variations in the supply of juveniles will be the effect rather of changes in the proportions available for employment.

The rise in the school-leaving age to 15 in 1947 reduced the juvenile population of working age by 613,000 or 24 per cent of the numbers aged

FIGURE I

*Estimates and Forecasts of Juvenile Population of Great Britain, mid-*1931 *to mid-*1963



1. Population Numbers 14–18. 2. Population Numbers 15–18.
3. Population Numbers 16–18

TABLE II

Index Numbers of Juvenile Population, 1947–1963, Great Britain. Population aged 15–18 in 1947=100

Mid-year	*Population 15–18*	*Population 16–18*
1947	100.0	66.5
1948	98.1	66.9
1949	94.5	63.8
1950	92.8	61.7
1951	93.3	61.7
1952	94.4	62.6
1953	96.1	63.4
1954	97.3	64.5
1955	97.1	65.4
1956	94.8	64.4
1957	94.8	62.1
1958	98.9	63.1
1959	105.7	68.4
1960	110.4	73.0
1961	123.5	74.6
1962	125.0	76.1
1963	—	87.8

Source, Figures in Table I.

14–18 in that year. If the second rise, to 16, were to take place within the next few years, it would remove a third of the numbers 15–18, *i.e.* it would be a relatively more important change than the first. In the later years, when the numbers in the age-group rise sharply, a rise in the leaving age to 16 would remove more than a third (33.9 per cent in 1950, 39.2 per cent in 1961). As far as the numbers remaining are concerned, therefore, it does not make so much difference as might be expected whether a year of high or of low population is chosen for the operation.

3. Juveniles Available for Employment in the Past

So far we have only been looking at population figures. To obtain an impression of the effects of raising the school-leaving age and of population trends on the actual supply of juveniles to industry, it is necessary to survey the proportions of the various age-groups likely to be available for employment.

Table III gives the number of juveniles insured against unemployment each year since 1931, and these figures expressed as a percentage of the juvenile population. Even with all the extensions of coverage under the Unemployment Insurance Acts, we do not get a complete picture of juveniles available for employment.

First, the figures exclude those who have left school and not yet obtained employment, or who are staying at school until they find a job. With full employment, this consideration is of less importance. Second, the coverage was not complete until the 1946 National Insurance Act was brought into force in July 1948. Some exemptions continued till then, of which the most important to the figures of juveniles were farmers' relatives, and private domestic servants.

A more accurate picture is given by the Census of Population figures of numbers occupied, but these are not available since June 1931. Comparison is extremely difficult, but a rough estimate suggests that the numbers insured in the juvenile age-groups in later years would have been about 90 per cent of those ' occupied '.

We will, therefore, take the numbers insured as a rough index of the numbers available for employment ', bearing in mind the qualifications made above. The changes in the scope of insurance make comparison over the whole period difficult. Those under 16 were not insurable before 1935, while the numbers of boys between 16 and 18 are really broken into two series by the inclusion of agricultural workers in 1936. The various changes did not, however, affect the numbers of girls so considerably. Finally, the figures for the 14–16 year-old age group for 1947 are affected by the raising of the school-leaving age to 15 in April of that year.

The difference between the trends for boys and for girls is noticeable. The number of boys insured has followed the trend of the juvenile population rather more closely than the number of girls, though there was some variation in the percentages prior to 1937. Since 1937, the numbers of insured boys

TABLE III

Juveniles Insured against Unemployment,[b] *mid-1931 to mid-1947, Great Britain. Estimated Number (thousands) and Percentage of Population in each Age Group.*[a]

Year	*Males aged:*				*Females aged:*			
	14–16		*16–18*		*14–16*		*16–18*	
(July)	*Nos.*	%	*Nos.*	%	*Nos.*	%	*Nos.*	%
1931c	—	—	579	73.8	—	—	438	55.4
1932	—	—	557	74.4	—	—	426	57.0
1933	—	—	507	72.3	—	—	392	56.7
1934	—	—	471	73.2	—	—	370	58.4
1935	517	58.2	453	74.6	411	47.0	359	60.0
1936	544	64.8	601	78.9	418	50.5	455	60.8
1937	522	66.3	725	81.8	406	51.2	561	64.3
1938	496	66.1	697	83.2	389	52.2	556	67.2
1939	475	64.8	642	81.0	373	51.2	532	67.9
1940	475	66.1	630	83.9	386	54.1	533	71.1
1941	474	67.3	623	85.2	387	55.6	541	74.3
1942	449	65.6	607	84.8	392	57.9	550	77.4
1943	438	64.8	564	80.6	393	58.9	545	78.4
1944	405	60.0	539	79.3	372	55.9	530	78.3
1945	395	59.0	530	79.1	364	55.1	514	77.2
1946	385	58.1	525	78.8	355	54.6	500	75.7
1947	355d	55.1	510	76.8	325d	51.6	490	74.9

(a) Source, *Ministry of Labour Gazette* and population figures from Heavy Clothing Working Party Report.

(b) There have been a number of changes in the scope of unemployment insurance in the period covered, viz.

- (i) Those aged 14–16 were not insured prior to 1935.
- (ii) Figures prior to 1936 exclude agricultural workers; the numbers included in 1936 were (in thousands) Males 14–16, 29; Males 16–18, 37; Females 14–16, 2.7; Females 16–18, 4.1.
- (iii) A number of domestic gardeners were included for the first time in 1937 and numbered 3 and 4 thousand males 14–16 and 16–18 .
- (iv) Certain classes of domestic employment became insurable in 1938. The numbers insured in 1938 were 2, 2, 4 and 9 thousand in the respective age and sex groups.
- (c) Non-manual workers earning £250–£420 p.a. were brought into insurance in 1941, but the number of juveniles was not affected.

(*c*) The figures of occupied given in the Census of Population 1931, for comparison, were M, 14–15, 180 (51.6%); M, 15–16, 271 (74.3%); M, 16–18, 695 (88.5%); F, 14–15, 137 (40%); F, 15–16, 219 (60.8%); F, 16–18, 600 (75.6%).

(d) The Ministry of Labour has kindly estimated the age split in 1947 in the first group as follows: M, 14–15, 135; M, 15–16, 220; F, 14–15, 125; F, 15–16, 200.

have been falling continuously. And after a slight rise from 1939 to 1941, the percentage insured has also been falling.

For girls the picture is one of almost continuous increase in the percentage insured until 1943. The increase was very considerable during the war years, from 67.9 per cent in 1939 to 78.4 per cent in 1943 in the 16–18 group, and from 51.2 per cent to 58.9 per cent in the 14–16 group.

Compared with this increase, the fall in the percentage of girls insured since 1943 has been small (except the 1947 fall in the 14–16 group, mainly due to the raising of the school-leaving age in April). The result of the rise in the percentage of girls insured and the fall of the percentage of boys is that the percentage of girls, originally much below that of boys, is now up to nearly the same level, especially in the 16–18 group.

With the older girls the percentage insured is still much above the boom year of 1937. With boys, on the other hand, not only the numbers, but the percentages insured are now considerably below 1937. The shortage of boy labour to-day is therefore due not only to the fall in the population but also to the fall in the proportion of those who actually go out to work. (This point is enhanced when it is realised that because of extension of insurance the percentage insured is to-day a truer index of numbers available for employment; so that the numbers insured in pre-war years understated the actual numbers available).

The decline in the percentage of boys insured is most pronounced in the 14–16 group, while the rise in the percentage of girls insured is least pronounced in this group, indicating that there has been a growing tendency to stay on at school beyond the statutory leaving age, in the later war-time and post-war years.[1]

We can now see clearly that the raising of the school-leaving age removes from employment not the whole age group concerned (and to look at it from this angle overstresses its seriousness to industry), but only the proportion, which actually enters employment; and that this proportion has been declining over the last few years. From the numerical point of view, the raising of the school-leaving age to 16 will be more serious than the raising of the leaving age from 14 to 15. While something like half the boys aged 14–15 and less than half the girls were affected by the raising of the leaving age to 15, about 60 per cent of the girls and 65 per cent of the boys in the 15–16 age group will be affected by the next rise. Similarly, a still larger proportion will be affected by the provisions for compulsory release for part-time education in county colleges when these are enforced.

After the difference, dealt with above, between the numbers insured and the numbers gainfully occupied is taken into account, the majority of the remaining juveniles are accounted for by continuance at school. Most of the rest presumably stay at home.[2] It is significant that new motives must be operating in the case of many of those staying on at school to-day in that one

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[1] War-time figures of school attendance are not available, but the Ministry of Education, in a recent circular, gave the following figures :

		1938	*1946*	*1948*
15—16	Boys	49,000	58,000	61,000
	Girls	41,000	50,000	55,000
16—17	Boys	20,000	27,000	30,000
	Girls	15,000	24,000	28,000
17—18	Boys	7,000	11,000	15,000
	Girls	6,000	10,000	14,000
		138,000	180,000	203,000

These increases are in spite of the fall, already noted, in the juvenile population.

[2] Some idea of the numbers staying at home can be gained from Ministry of Education figures (Report for 1947, Cmd. 7426). Of 346,684 school-leavers in England and Wale in 1946–7, 299,404 left for paid employment, and 38,464 to further education, leaving deficit of 8,816 (3,900 boys and 4,916 girls) or 2.6 %.

of the major pre-war motives—the absence of a job to go to—has now largely disappeared.[1]

In comparing the supply of juveniles for industry in the past with our forecasts for the future, account must be taken of the difference between the numbers 'available for employment' and the numbers actually absorbed by industry. The figures of insured juveniles include the insured unemployed. In the 16–18 age-group, the insured unemployed varied in pre-war years (July) from 2.4 per cent to 7.6 per cent of total insured (girls) and 2.3 per cent to 9.3 per cent (boys). Figures of insured unemployed are not very significant for the 14–16 age-group, since they exclude those who have not yet had their first job. (In 1938 in the 14–16 age-group there were 17,000 insured unemployed and 24,000 registered uninsured unemployed). In round figures, the total numbers of juveniles unemployed—both insured and uninsured—seldom fell below 100,000 in pre-war years.

If this unemployment is avoided, an appreciable contribution will be made to increasing the effectual supply of juveniles. At present the numbers unemployed are small, the unemployment percentages for 1947 being: boys 14–16, 0.9 per cent; boys 16–18, 0.6 per cent; girls 14–16, 0.4 per cent; girls 16–18, 0.4 per cent. Moreover, of these the large majority were unemployed only for a short period.

4. THE NUMBERS AVAILABLE IN FUTURE

In Table IV a forecast is given of the numbers of juveniles likely to be available for employment in the future. This forecast is made by assuming that the proportion of juveniles insured will remain the same as in 1947. In addition to remembering that the numbers insured are not necessarily equivalent to the numbers gainfully occupied, the reasonableness of the assumption that the 1947 proportions will continue must be examined (a rough indication of the numerical effect of an alteration in the percentages is given later in this section).

The most significant factor will probably be the maintenance of full employment. By enhancing family income it will make it less necessary than in the past for all members of the family who can get work to do so; while it may encourage both juveniles and parents to see a longer stay at school as the key to the best jobs. Further education may also expand. On the other hand, there will be compulsory part-time education in the County Colleges in any case; and full employment and shortage of labour may, by raising wages, tempt young people, searching for independence and adulthood, to enter industry as soon as they can.

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[1] All the studies of juvenile unemployment before the war revealed a considerable time-lag for many juveniles between the end of compulsory school attendance and finding their first jobs. Some stayed at school until a job became available. Many writers on the subject urged a rise in the school-leaving age to reduce juvenile unemployment. See e.g. G. Meara 'Juvenile Unemployment in S. Wales'; Jewkes and Winterbottom 'Juvenile Unemployment'; J. and S. Jewkes 'The Juvenile Labour Market'; Winterbottom 'Enquiry into the Employment of Juveniles in Lancashire'; Tawney 'Juvenile Employment and Education.'

The percentage insured is probably least likely to fall materially in the 16–18 age-group, especially if County College part-time education is introduced. Some fall in the 15–16 group may well take place through an increasing tendency to stay at school in anticipation of the rise of the statutory leaving age to 16. It is not likely that the percentages insured will rise, providing full employment of adults continues.

The estimates in Table IV are given on three different assumptions: (1) that there will be no further education reforms; (2) that compulsory part-time education in county colleges will be introduced;[1] (3) that the statutory school-leaving age is raised to 16 as well. The estimates[2] are shown graphically in comparison with the past in Figure 2.

The conclusion that we reached earlier, in surveying the population figures, that for the next ten years any considerable variation in the numbers of juveniles available for employment will mainly be the result of statutory changes in education requirements is shown very clearly by this Table.

The raising of the statutory leaving age to 16 before the introduction of compulsory attendance at county colleges would have removed something

TABLE IV

Forecast of Juveniles Available for Employment, mid-1948 to mid-1963, Great Britain (thousands)

Mid-year	I	II	III
1948	1398	1175	846
1949	1344	1131	806
1950	1319	1109	780
1951	1324	1113	780
1952	1342	1129	791
1953	1364	1147	801
1954	1381	1161	816
1955	1382	1162	826
1956	1349	1135	813
1957	1344	1131	785
1958	1398	1176	798
1959	1497	1259	864
1960	1568	1319	923
1961	1609	1354	944
1962	1759	1479	962
1963	—	—	1107

Columns I and II refer to Juveniles aged 15–18.

Col. I assumes no further education reforms.

Col. II assumes compulsory attendance at county colleges for 44 days a year, and excludes the full-time equivalent of this (*i.e.* the figures are 84 % per those in Col. I).

Col. III assumes statutory school-leaving age raised to 16 and compulsory attendance at county colleges.

These figures are computed from the figures summarised in Table I on the assumption that the percentage in each age group insured will remain the same as in July 1947, viz. Males 15–16, 65.9% ; Males 16–18, 76.8% ; Females, 15–16, 60.8% ; Females 16–18, 74.9%. The numbers insured are only published for the age-groups 14–16 and 16–18, but the Ministry of Labour has kindly supplied an estimate of the number in the separate age-groups 14–15 and 15–16.

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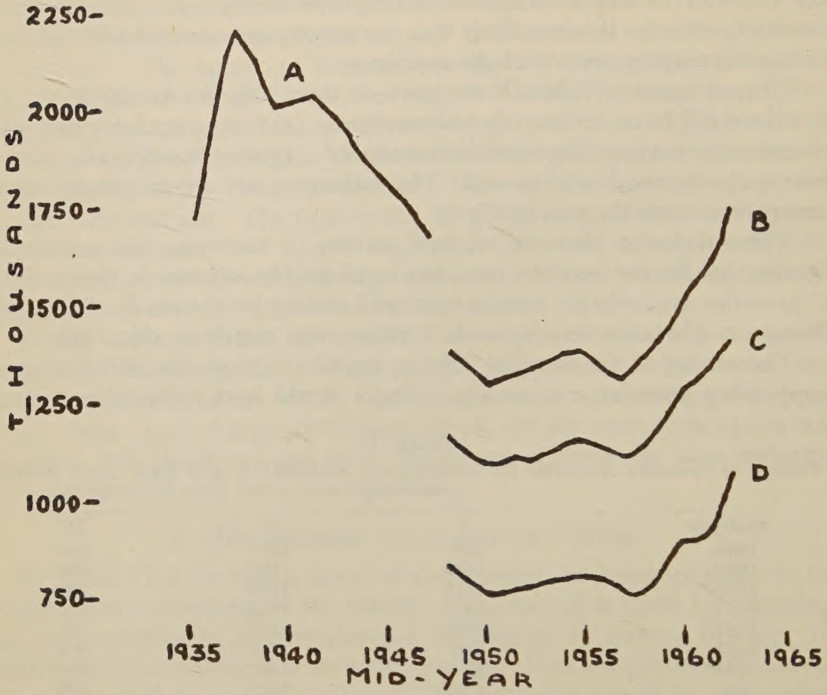
[1] The Minister of Education has stated that this will be the next change to be introduced. The numbers shown are those remaining after the full-time equivalent of attendance at county colleges for 44 days in the year has been deducted.

[2] The figures on assumption (2) and (3) as well as assumption (1) are given in the Table for 1948 for comparison.

FIGURE II

*Estimates and Forecasts of Juveniles available for Employment, for mid-*1935 *to mid-*1963



(*a*) Insured Juveniles 14–18.

(*b*) Forecast of Juveniles 15–18, assuming no further education reforms.

(*c*) Forecast of Juveniles 15–18, allowing part-time attendance at County Colleges.

(*d*) Forecast of Juveniles, assuming Education Act 1944 fully enforced.

like 400,000 insured juveniles, or 29 per cent of the numbers available at present. The introduction of compulsory attendance at county colleges will have a less severe effect, removing, in full-time equivalent, roughly 225,000, or 16 per cent. The full implementation of the Education Act 1944 would remove about another 325,000 and the present juvenile labour force would altogether be reduced by 40 per cent.

Some part-time education takes place already, of course, but it is not significant in comparison with the numbers who will have to be released by industry to attend county colleges. In 1950, the latter will be about 1,320,000; whereas in January 1947, some 167,000 juveniles were released by their employers for part-time further education (and these included those aged 14–15). However, this was a big increase over pre-war, for in 1938 they numbered only about 42,000.

Within the broad totals it is worth noticing the characteristics of the separate age and sex groups. Without county college attendance, the numbers of girls under 16 insured will be about three-fifths of what they would have been had the school-leaving age not been raised to 15, and of boys about seven-tenths. Within the 16–18 age-group there is a big contrast between boys and girls. In comparison with pre-war years the numbers of girls will not (neglecting the county college attendance) be so greatly below pre-war years, never falling below 450,000 compared with 530,000 in 1939, and reaching a peak in 1963 much above that of 1937. With boys, on the other hand (again neglecting county college attendance), the numbers will shrink to 475,000 in 1950 compared with 642,000 in 1939 and the 1963 peak will be slightly below that of 1937. The contrast between boys and girls is due entirely to the change in the relative percentages insured, and is in spite of a rise in the ratio of boys to girls in the population.[1]

Our forecasts in comparison with the past and the present may be summed up thus in round numbers :

JUVENILES AVAILABLE FOR EMPLOYMENT (000's)

1937 (aged 14—18) ...	2214
1939 ,, ,, ...	2022
1946 ,, ,, ...	1765
1948 (aged 15—18) ...	1400

	I	II	III
1950	1320 ±100	1110 ±75	780 ±50
1955	1380 ±100	1160 ±75	830 ±50
1962	1760 ±125	1480 ±100	1110 ±75

Column I assumes no further education reforms; II compulsory attendance at county colleges only; and III full implementation of the Education Act. The rough limits assigned take account of possible changes in the proportions insured, discussed above. Each limit assumes the percentage insured varying by 5 points from its 1947 level.

It is clear from this summary that in comparison with pre-war years there will be a serious shortage of juvenile labour even if there are no further education reforms. If compulsory attendance at county colleges is introduced, the shortage of juvenile labour in the next few years will be serious compared with the present ; and if the Education Act is fully implemented, the number of juveniles available in the next few years will not be much more than half the present number. The big increase brought about by the rise in the juvenile population in the early 1960's is clear in all cases.

It should be noted that when the statutory school-leaving age is raised, the result is not only to narrow the field from which juvenile labour is drawn in the future, but to reduce to a very small number the new recruits to industry in the year following, since the majority of the normal recruits, those who reach the old school-leaving age in the course of the year, will be staying on at school.

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[1] The ratio of males to females in the age-group 14—18 rose from 1.003 in 1931 to 1.017 in 1934, declining to 1.005 in 1939. In 1947 it was 1.019, in 1950 it will be 1.024, in 1955 1.036 and in 1960 1.043.

The effective future supply of juvenile labour to industry is also affected by some factors we have not mentioned. Among these is the number of hours worked. The average weekly hours worked by juveniles have fallen more than those worked by adults since 1938; but a shortening of hours does not, of course, necessarily imply an equivalent fall in the effective labour supply (*i.e.* in output).

In the past, an additional source of juvenile labour for such jobs as newspaper delivery was school-children. The legal minimum age for such employment is 12 and in 1931 some 80,000 school-children between the ages of 12 and 14 were revealed by an enquiry conducted by the Home Office and Scottish Education Department to be employed in this way. Observation suggests that this is not now an important source of juvenile labour, though the trend since 1931 is not known.

5. Changing Pattern of the Working Population

The significance of the changes in the juvenile population cannot be fully comprehended without their comparison with the changing pattern of the population as a whole. This is particularly important in considering the problem of substitution of adult for juvenile labour.

Table V shows the changing age-structure of the population of working age. Though the figures are for England and Wales, it is unlikely that the pattern for Great Britain will differ markedly from it.

The picture given by Table V is of a decline in the contribution of the middle age groups to the population of working age. At one end there is a small increase between 1947 and 1960 in the percentage of juveniles. At the other end there is a considerable increase in the percentage in the age-groups 45–60/65. These increases are offset by a small decrease in the 18–25 group and a considerable decrease in the 25–45 group.

TABLE V

Age Distribution of Population of Working Age
Numbers in thousands

England and Wales, mid-1947, mid-1950 and mid-1960

Age	*1947* Nos.	%	*1950* Nos.	%	*1960* Nos.	%
1. Males						
14–18	1169	8.0	1111	7.6	1344	9.0
18–25	2108	14.4	2063	14.1	1979	13.3
25–45	6627	45.3	6503	44.4	5873	39.4
45–65	4713	32.3	4957	33.9	5696	38.3
14–65	14617	100.0	14634	100.0	14904	100.0
2. Females						
14–18	1149	8.0	1084	7.6	1289	9.2
18–25	2106	14.7	2027	14.3	1923	13.8
25–45	6737	47.1	6628	46.7	5901	42.3
45–60	4317	30.2	4452	31.4	4838	34.7
14–60	14309	100.0	14191	100.0	13951	100.0

Note: Source as Table I.

From this we can gain a good idea of the changes in the actual working population. We have already seen the decline in the numbers insured in the juvenile group which follow from the education reforms. There has also been a decline in the proportion of males insured in the next age-group because of military service. The percentage of males aged 18–21 insured has declined from 81 per cent to 35 per cent over the ten years 1937–1947 (Ministry of Labour Gazette, February, 1948).

There is thus likely to be a big decline in both the number and the proportion in the under–45 group, and a corresponding increase in the over-45 group. The decline in juveniles available for industry will thus only be a part of the general decline in the younger sections. In particular, the decline in the population aged 18–25, when taken in conjunction with the effects of the call-up, accentuates the seriousness of the decline in the juvenile group. This will necessitate the careful examination of two problems; the extent to which the period of industrial ' learnership ' can be shortened, and education in school and forces integrated with it; and how far the jobs of a blind alley nature can in future be dispensed with or performed by other sections of the population, such as those past retiring age.

It is worth noting, since female labour is to some extent substitutable for juvenile, that the proportion of women in the working population will decline. As will be seen in Table V, the number of males will be increasing and the number of females decreasing. The proportion of females will fall from 49.5 per cent in 1947 to 48.3 per cent in 1960. The proportion of males who enter employment is, of course, far higher than that of females. The percentage of males of working age who were insured was 71 per cent in 1937 and 66 per cent in 1947; the corresponding figures for females being 26 per cent and 29 per cent. The decrease in the number of women in the working population will be the more serious, in that a high proportion of women workers are drawn from the under-45 age-groups. There will still, of course, be large numbers of older women not in employment; but the drive to recruit them to industry has not been too successful so far.

6. CONCLUSIONS

We have seen that the fall in the juvenile labour force since pre-war years is the result partly of the fall in the juvenile population and partly of the raising of the school-leaving age in 1947, and the tendency for more juveniles to stay at school beyond the statutory age. Up till 1958 there will be comparative stability in the juvenile population, and big changes in the supply of juvenile labour will therefore only result from enforcing further provisions of the Education Act 1944, or from considerable changes for other reasons in the percentage of juveniles entering insurable employment.

After 1958 there will be comparatively big annual increases in the supply of juveniles. Their absorption will require considerable adaptability from industry (In the inter-war years the big changes in the supply of juvenile labour closely paralleled the trade cycle, so that the need for this adaptability was not so apparent).

A much higher percentage of girls enter employment now than in the past, and as a result there is likely to be a greater shortage of boys than of girls. The shortage of boys will be intensified by the call-up.

Industry has already had to make a considerable adjustment with the rise in the school-leaving age to 15 in 1947. The further rise to 16 will, however, be more serious since it will affect a higher proportion of juveniles, and the numbers removed will be a much higher proportion of those remaining. The decline in the number of younger adults in the population will make substitution more difficult.

It is impossible to reach definite conclusions about the effect of the overall drop in numbers of juveniles without investigating the industrial and occupational distribution of juvenile labour in the present, and its geographical distribution. Such an analysis, which will be undertaken in a further article, may throw light on the extent to which the apparent shortage of juvenile labour can be overcome by a more rational use of available juveniles; this may enable us to take into consideration some of the qualitative effects of the education reforms.

R. Godson.

BRITAIN, O.E.E.C. AND THE RESTORATION OF A WORLD ECONOMY

1. The British Programme and the European Problem

In compliance with the Economic Co-operation Act the European Governments were asked to submit for consideration and transmission to the U.S. Administration their plans in respect of the use of Marshall Aid in the four-year period. These were to be presented by October 1st, 1948, *i.e.* before the results of the U.S. election were known. The Organisation was to have reported in the middle of December, *i.e.* only two months were given to the essential, and much more difficult, task of working out a combined programme. In the event the Organisation was not given even this inadequate period as most Governments were late in working out their programmes. On the other hand the delay was unfortunately not used for a modification of those plans which had been drawn up earlier, including the British, in the light of the vital changes in prospects due to the U.S. election.

The limitations imposed by this procedure must be borne in mind when discussing the British Plan. It is a *national* plan concerned with the general policy of, and, in particular, the intended use of, Marshall Aid by Britain. It may be added that the plan has been put forward only as a basis for discussion and that, had the other member Governments of O.E.E.C. been equally prompt in delivering their reports, the Organisation could have made more headway in its task of reconciling inevitable differences in the national programmes for discussion with the American administration. It should not have been expected that a coherent combined programme could be prepared in the time available. It is therefore understandable that British official circles react sharply to suggestions that in drawing up their programme they have violated the basic principles and aims of the European Recovery Programme, the unification and strengthening of the Western European economy as a whole.

On the other hand the lack of a consistent attitude on the part of the British Administration, especially on the part of the officials, to the problem of economic policy has caused some complications. The policies of reinforced yet balanced fiscal and direct controls adopted after the breakdown of ' convertibility ' in 1947 have been vindicated more completely than anybody dared to hope. But it seems that the Government itself has not been completely convinced by its own success. The approach adopted in the British Memorandum is very similar to that of the Economic Survey for 1947.[1] We are again assured that planning cannot be considered as an end in itself but as a means to an end. This might mean that the Government considers planning, *i.e.* co-ordination of policies for a given end, as an essential feature of our economic system because free-market economics cannot be trusted to achieve a balanced and justly distributed increase in the national income, in the present position of Britain. Alternatively, it might be interpreted as meaning that the Government regards government intervention merely as a transitory measure necessitated by the exceptional circumstances caused by the war, and that, as prior to 1947, attempts will be made to discontinue controls, even if their economic function has not been completed. Far too little time was available for the Cabinet, not to mention Parliament and informed public opinion, to discuss the implication of proposals which, if taken seriously, will determine the future of Britain. The next few years will see the success or failure of recreating a working world economy and restoring the functions of Europe in it which have been undermined by two wars. The problem before us is to ensure so rapid an expansion of world real income that world trade in manufactures can be maintained in spite of industrialisation of overseas territories. If such an expansion cannot be achieved it will weaken the economic basis of Western European countries to such an extent that their present populations cannot be supported at their accustomed standard of life. And the British plans and conceptions are the most important single element in the pattern of European reconstruction.

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[1] *Cf.* Worswick and Burchardt, Bulletin of the Oxford Institute of Statistics, 1947.

What democratic planning should imply is the elaboration by the Executive of *alternative programmes* and testing them by public discussion, due time being given for their thorough scrutiny. This would enable the Government to make their choice consciously, weighing the alternatives as they affect the individual.

It is doubtful whether, in fact, public opinion would have favoured the programme adopted by the Government, on the grounds that it does not propose to force the pace enough. It is noteworthy in this respect that even during the war it was public opinion which prodded the Administration into more complete mobilisation of economic resources for war.

Some of the basic assumptions of the British plan were laid down by the American Administrators and were applicable to all countries. The material ones are as follows :[1]—

1. That there will be no war, or even a substantial diversion of economic resources to war preparation.
2. That high employment will continue throughout the world and particularly in the U.S. It has apparently not, however, been assumed that the United States as a surplus country will ' play the orthodox game ', and inflate slightly to readjust her international balance.
3. That there will be a high level of world trade (or more precisely that demand for European exports) will continue on a high level irrespective of Europe's own need to control imports.
4. That the terms of trade will remain at the 1948 level.

We shall presently discuss these assumptions, and shall argue that they are insufficient for the restoration of a satisfactorily working multilateral economy. Even within their framework, however, the British experts had a series of choices to make which would lead to alternative plans. The elaboration of such alternatives would have made the British and U.S. Governments and public opinion clearly conscious of the problems and decisions involved and would facilitate their eventual acceptance. This opportunity has been clearly missed.

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[1] *Cf.* O.E.E.C. Interim Report on the E.A.P., Vol. I, Paris, December 31st, 1948, p. 11-12

There are three further basic questions the answer to which would determine the shape of the British programme :

1. What is the likely increase in British production (and as there are no unemployed factors, this means productivity) in the next three years, given certain assumptions about British internal economic policy?

2. What measures is the U.S. Government likely to take in order to mitigate the inequality of opportunity of the non-American countries and at the same time mitigate the dollar crisis? Such measures might take the form either of non-tied U.S. loan or grant aid to non-European countries to help in their development, the permission to introduce or secure preferential treatment for European exports in Europe and elsewhere, or unilateral tariff concessions to promote European export to the U.S.

3. Finally what measures are other European member countries of O.E.E.C. likely to take to implement plans mutually agreed upon, on the fulfilment of which depend British plans to shift sources of supply to Europe? A failure to meet promised deliveries might under certain circumstances have catastrophic results for Britain.

The greater the expected increase in productivity in Britain, the more favourable the chances of a direct or indirect satisfaction through exports of the dollar-requirements of this country, and the closer knit the European plans the more naturally multilateral can be the character of the restored world economy. Conversely, the greater the immediate effort at increasing productivity at home, the more multilateral can be the character of the British plan, and the greater are the chances of the eventual favourable solution of the whole problem. For the more widespread the territory for which we plan, and hence the prospective international division of labour, the more quickly can the Continent as a whole recover. As Britain's position—with her relatively high standard of life and her dependence on foreign trade—is the most precarious (and as Britain could gain most from a successful outcome of the experiment) it seems arguable that *some calculated risks* should have been taken, provided they did not endanger our basic position.

Having given proof of our willingness under certain conditions to undertake sacrifice for European recovery we should have been in a strong position to insist on the full co-operation of other European countries in carrying out this plan, *i.e.* to institute controls which would politically be highly unpopular in those countries.

THE QUANTITATIVE ASPECTS—INTERNAL ASPECTS

Productivity. The first and most important assumption of the plan is that manufacturing output will not increase by more than 2½ per cent compound. This is a surprisingly small figure, equal to the actual rate of progress in the inter-war period from 1924 onwards, *i.e.* over good years and bad and including the Great Depression.[1]

Investment. This is the more surprising as gross investment at 20 per cent of gross national output is some 33 1/3 per cent above pre-war and net investment, equal to about 10 per cent of national income, is almost twice the pre-war rate. It is, moreover, somewhat more concentrated in industry, *i.e.* 33 per cent of the total as against some 25 per cent. On this basis alone a far greater increase of output might have been expected.

This particular mistake of under-estimating the rate of economic progress was also committed last year. In consequence investment plans were cut too sharply. This and renewed decontrol in the higher stages of production threatened with localised unemployment. The resulting political pressure forced the Government to relax controls on consumption (especially clothing) and unnecessary investment (*e.g.* house repairs). Thus the increase in productive power, instead of being canalised towards necessary investment and exports, was partly dissipated. The present plan clearly courts the danger of pitching essential large-scale investment, including housing which has to be planned years ahead, and which is determined directly, or controlled by the Government, too low as the result of under-estimating investment capacity. This might well result again in unexpected disappearance of ' shortages ' and demands to relax controls, *e.g.* steel-allocation, or to permit the increase of luxury consumption, *e.g.* domestic sales of motor cars, instead of using all resources for the expansion of vital capital investment. Alternatively (or in addition) Britain might find herself balancing her over-all trade account much earlier than necessary and thus forced to increase sterling grants to more improvident countries. Finally, it is possible, of course, that the Government envisages so large an increase of outlays on armaments that the present rate of investment cannot be maintained.

Industrial re-organisation. The low level of British manufacturing efficiency has been the subject of a great number of private and public enquiries. The very fact that it is low and that, seemingly, there is no difference of opinion about the need for thorough reforms, might have encouraged hopes for a much greater effort than is envisaged or is at any rate considered possible. A re-organisation of lay-out and reform in the running and maintenance of machinery could have yielded a large part if not the whole of the projected improvement in productivity. Moreover re-deployment accompanied by alteration of wage systems might have been attempted in co-operation with the Trade Unions, and might have produced an overall gain amounting to as much as 5—10 per cent in the four-year period.

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[1] Excluding house-repairs of about £80 million.

On the whole, however, the decisive advance must depend on the skill and persistence of the Government, in increasing and improving capital equipment. This is the more important as a fully employed economy cannot depend for its resilience and flexibility on an industrial reserve army. Thus it is essential to have adequate stocks of raw materials and components on the one hand and of surplus manufacturing capacity on the other to be able to meet unexpected changes in demand without unemployment. Every economy must have reserves; a progressively managed economic system will build up reserves not of wasting manpower but of productive capacity.

Had the advance in productivity and production been calculated on the basis of greater success for the Government's policies, the contemplated rate of investment could also have been increased. Indeed it seems odd that despite the increase in national output by some 15 per cent in the four-year period the ratio of investment to consumption is kept unchanged. The possible threat of German and Japanese competition and of a pressure developing after the ending of Marshall aid should have called for greater efforts.

External Aspects

Overall Movements. The Government hopes to turn the deficit in the balance of payments of some £650 millions in 1947 into a surplus of £100 millions. The projected pattern of recovery is interesting. (Table I).

A comparison with the first half of 1948 yields the following results :—

(*a*) the value of imports would be permitted to rise by 10 per cent only; taking into account the rise in prices between the average for the first half of 1948 and the middle of that year, this means that the volume of imports will remain practically at their present (1948) level;

Table I

U.K. Balance of Payments by Areas, 1952–53 ($ million)

	Western Hemisphere	Other non-participating	Sterling Area	Participating countries*	Total
Outgo :—					
Imports	1888	1177	3216	1749	8030
Shipping ...	267	46	162	303	778
Travel	40	4	121	200	365
Interest, Profits, Dividends ...	255	38	153	100	546
Normal amortisatn.	95	...	29	...	124
Total	2545	1265	3681	2352	9843
Income :					
Exports and re-exports	1455	990	3492	1440	7377
Shipping ...	351	47	478	261	1137
Travel	150	5	65	40	260
Interest, profits, dividends ...	205	25	430	40	700
Normal amortisatn.	...	13	...	56	69
Other receipts (net)	93	11	32	564	700
Total	2254	1091	4497	2401	10243
Balance	—291	—174	+816	+ 49	+400

* Non-sterling. + Surplus. — Deficit.

(*b*) invisible expenditure (net) is to be cut by £70 millions (despite an increase in expenditure on travel of some 100 per cent), *i.e.* mainly Government expenditure;

(*c*) debt interest and service is to be allocated £170 millions instead of £120 millions;

(*d*) exports are to increase by roughly £300 millions p.a.;

(*e*) shipping income is expected to rise by £50 millions;

(*f*) other receipts are to rise by £100 millions.

The progress towards these aims is shown by the following table.

TABLE II

U.K. Balance of Payments on Current Account (£ millions)

	Imports f.o.b.	Exports and re-exports f.o.b.	Balance on visible trade	Invisibles (Net)	Total
1946 :[1]					
1st half	502	392	–110	–120	–230
2nd half	690	498	– 92	– 48	–140
1947 :					
1st half	725	511	–214	–121	–335
2nd half	815	591	–224	– 71	–295
1948 :[2]					
1st half	887	731	–156	+ 16	–140
1952–3					
(½ yearly rate) ...	1000	920	– 80	+130	+ 50

[1] Ref. *Hansard*, Vol. 456, No. 8, 23rd September, 1948. Columns 137 and 138.

[2] Cmd 7520, p. 3, Table I.

Substantial overall advance has already been achieved.

The geographic redirection of imports and exports, however, has not been as successful, and for good reasons. The Western Hemisphere deficit in the first half of 1948 was almost at an annual rate of £400 millions as against the contemplated £150 millions in the last year of the Plan. The surplus towards the Sterling Area was at the annual rate of £140 millions as against £225 millions. The favourable balance with O.E.E.C. countries was at the rate of £80 millions as against £10 millions. So far as British policy is concerned these figures do not seem to support the contention that a stricter control over exports, the case for which was discussed elsewhere in this BULLETIN,[1] is not needed. Yet there seems to have been further relaxation even in this direction.

Autarky. The plan envisages an increase of national output by some 30 per cent above pre-war with manufacturing output leading the expansion with 40 per cent above 1938, envisages a *cut* in imports to 80—85 per cent of pre-war as compared with 68.3 per cent in 1946 and 77.4 per cent in 1947

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[1] The British Balance of Payments. BULLETIN, July 1947.

(88.6 per cent in the third quarter). Thus the ratio of imports to output is roughly to be cut to 60 per cent of pre-war.

Increased autarky has become inevitable. But it seems premature at this stage to put forward plans which imply that little regard is to be paid to the needs of the other members of O.E.E.C. The explanation, somewhat too complacent, that ' in the first place the United Kingdom is making a major contribution to the solution of the European problem as a whole by surmounting the United Kingdom dollar problem ' does not provide any solace for other Western countries. The maintenance of the present standard of life in Western Europe depends on a co-operative increase in European productivity as a result of pooling European resources and markets. Our contribution to the solution of their problems can hardly consist in making sterling a hard currency.

No doubt multilateral European trade cannot be restored without conscious planning, and that that planning must fulfil two conditions: greater security must be given that other European nations will in fact fulfil their programmes and deliver the exports they promise. And it must be made perfectly clear to all, including the U.S., that Britain can only provide dollars for imports into Britain if those dollars can be earned by her exports, *i.e.* in fact only if the U.S. is willing to finance development abroad.[1] This does not mean, however, that at this stage our plans should be drawn up on the basis that these conditions cannot be satisfied. The British plan, even as at present formulated, involves a multilateral acquisition of dollars: it assumes that an (at present non-existent) import surplus of or foreign lending by the U.S. will permit the conversion of Britain's export surplus to the sterling area into dollars. The same approach has not been adopted for our dealings with Europe.

This procedure has been defended on a double plea. It is argued that ' it is not convertibility that produces a balance of trade, but rather the existence of a balance of trade that alone makes convertibility possible.'[2] If this statement is to mean that policies involving the immediate restoration of general convertibility without strictest controls and planning involve monetary policies, *i.e.* a sharp deflation, which would decrease the standard of life far more than any gain that might result from the ' freer ' payments system, it seems incontrovertible. If, however, it is to mean that Britain cannot collaborate in minimising the fall in the standard of life of Continental Western Europe which would incidentally follow if imports from those countries were to be restricted—which it obviously intends to convey—it proves too much. The balancing of payments can be worked in different ways and it is extremely regrettable to abandon *a priori* hope of obtaining effective U.S. co-operation in solving this problem which indeed Britain alone can no longer solve.

It seems therefore that a case could be made for increasing ' unessential ' imports from the ' participating ' countries and budgeting for a greater increase of our own overseas exports. The fact that British exports need only to increase from the contemplated 150 per cent to 160 per cent of 1938 (as against an initial post-war target of 175 per cent) or by 17 per cent of the 1948 volume if the more legitimate demands of Europe are to be accommodated, is an additional reason: Britain is in a far better position than most other European countries and might help to ease the readjustment of others. On the other hand, Britain stands more in danger as a result of a breakdown in the present trend of U.S. policy and would be wise to demonstrate to her utmost her determination to contribute to its success.

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[1] *Cf.* below.

[2] *Economist*, January 1st, 1949, p. 4

Are we not in danger of treating the minor sterling crisis in the same mistaken way as the United States treated the major dollar crisis prior to 1947, to which the impending sterling crisis has great resemblance ?

There is no indication on what basis the total demand for aid from America has been fixed. For 1949–50 this is to be reduced by 25 per cent and is apparently to disappear by equal instalments by 1952. It might have been better to budget for a larger investment programme while maintaining our request for American help. It is noteworthy that the dollar allocations to France for 1949–50 remain at 88.5 per cent of 1948–49; for Italy at 92.3 per cent, and for the Bizone at 97.6 per cent. Some countries (*e.g.* Greece, the French zone of Germany) are to receive substantially more in the coming year than in the past period. The rapid advance towards a complete balancing of our overall payments might result in further cuts in *net* aid. This pressure of reducing dependence in the U.S. before investment plans have matured might account for the bilateral character of the projected trade pattern with Europe which aroused such fierce criticism in the U.S. If this was the case, the tactics of presenting the report were hardly fortunate.

The European Programmes and the O.E.E.C. Report

The programmes of the other members of O.E.E.C. do not differ much in the conception of ultimate aims from the British programme. We find the same striving for greater self-sufficiency (Table III).

This shift towards autarky would be natural if it were *regional*. But while Western European exchanges with their own dependent territories are to increase to almost 140 per cent of 1938, the level of intra-European trade is barely to be restored to that level.

The production programmes are on a more ambitious scale than those of this country (especially if we bear in mind that the British figures *depress* the European *average* and that recovery in Britain has gone further than in most of the Continental countries). (Table IV).

The O.E.E.C. report, an excellent document for the short period available for its drawing up, is only an interim summary of and comment on the individual plans. It is much more candid about the prospects of implementing these plans than could have been expected from a body which consists of representatives of the Governments which have drawn up the programmes which it has to pass.

TABLE III

Imports of Participating Countries

	$000 Million at 1948–49 Prices				1938=100		
	1938	1947	1948–49 *Programme*	1952–53 *Programme*	1947	1948–49 *Programme*	1952–53 *Programme*
Imports of United Kingdom, France, Benelux and Portugal from their own dependent overseas territories ...	1.6	1.7	2.0	2.2	108	126	138
Imports of O.E.E.C. countries from other O.E.E.C. countries and their dependent overseas territories ...	9.5	6.2	7.35	9.6	63	77	101
North and Central America ...	4.1	7.3	5.7	3.8	179	139	93
South America	1.7	1.7	1.7	2.1	97	97	117
Sterling Area	2.9	2.0	2.9	3.3	69	99	116
Eastern Europe	3.0	0.9	2.1	2.2	30	49	73
Other Countries	1.3	0.6		1.4	46		108
Imports from outside world	13.0	12.5	12.4	12.85	96	95	99
Total	24.1	20.4	21.75	24.65	85	90	102

TABLE IV

Industrial Production Attained and Development Schemes (1935–8=100)

O.E.E.C. Countries	1947	1948–49 Programme	1949–50 Programme	1952–53 Programme
Metropolitan Territories				
Coal	80	91	97	111
Electricity	148	166	180	222
Crude oil (throughout)	98	174	231	480
Steel (crude)	69	102	115	129
Steel (finished)	74	107	121	140
Aluminium	89	120	141	210
Nitrogenous fertilizers	113	149	177	239
Potash	96	123	136	176
Soluble phosphates	101	136	174	196
Textiles (total consumption of fibres)	84	99	108	122
Machine tools	73	85	105	139
Equipment (incl. machine tools)	...	115	125	145
Motor vehicles, commercial	108	152	155	180
,, ,, private passenger	49	67	...	116
	1446 or 1947			
Overseas Territories (total exports)				
Coal	16	...	...	147
Iron Ore	95	...	...	171
Phosphates	140	...	...	200
Metal and ores (in terms of metal)				
Lead	132	...	...	300
Zinc	293	...	...	522
Copper	97	...	...	131
Tin	61	...	...	146
Bauxite	232	...	...	414
Cotton	99	...	...	156
Sisal	72	...	...	108
Hardwood	60	...	...	177
Rubber	84	...	...	200

The Report contains discussion of four aspects of European recovery: the expansion of production, the balance of payments problem, the problem of reviving internal trade and the question of the best use of productive factors. In each of these questions the Report expresses grave scepticism about the practicability of the ' targets ' envisaged and points out some of their inconsistencies without attempting to come to practical conclusions. Unfortunately time was not available to view the task of Europe as part of a wider world economic problem. There is no discussion of the adjustments in economic policy and in international agreements (*e.g.* the Havana Charter), which have to be made if any of these plans are to mean much more than attractive day-dreams. Without analysis and action on this point intensive European co-operation is impossible. This failure is the more regrettable as the national plans might have been profoundly influenced by an agreement reached on a super-national basis. It is yet to be seen whether the promised final Report will unfold a comprehensive plan which can then be discussed with the U.S.

Production.[1] The overall increase in productivity needed to achieve the objectives is 15 per cent. The report comments :

> 'The achievement of the national programmes is conditional on an increase of some 15 per cent in output per man hour during the next four years. This is a bold assumption. Yet no other assumption is more important. . . . Whether it can be fully effected in the period of three and a half years is however doubtful, and therefore no effort should be spared to secure as great an increase as possible.'

But given the grave disturbance in the balance of productive capacity, and the consequent artificial depression of productivity, a well co-ordinated plan should easily be able to achieve this progress. There is some discussion of the measures, *e.g.* standardisation, specialisation, needed to obtain rapid progress, but the examples of certain preliminary preparations quoted (*e.g.* railway wagons) are clearly insufficient. Longer hours and the redeployment of labour, which are discussed at great length, are not impossible but would demand a much closer social coherence and unity than obtain on the Continent. Nor is here any attempt made to indicate the minimum controls which would seem necessary to achieve this aim. This restraint in the discussion of the essential details of the implementation of the plans shows the limitations of the procedure. Without assurance that the continental European plans, especially the French, which is both quantitatively and qualitatively the most important, will in fact be executed, consequential modifications in other programmes are pointless and even dangerous.

Balance of Payments. Much the same comment can be made in respect of the chapter on the balance of payments. Here again the O.E.E.C. was much handicapped, as is acknowledged in the Report. As the examination ' has been confined to 1949–52 little allowance could be made for the possibility of developing trade by systematic co-operation between Europe and other major economic regions; it may be desirable to stimulate production outside the participating countries '. It is noteworthy that up to 50 per cent of exports are to consist of metals, equipment and other engineering and related products. The demand for these products is notoriously unstable. Hence without extra-European planning the European programmes are necessarily subject to qualifications which the O.E.E.C. duly records. But more important and urgent than the qualification of the report would have been an authoritative analysis (surely possible without even first waiting for the details of the national plans) of ***how stable markets for Europe are to be secured.***

The O.E.E.C. doubts whether the export programme is possible without an increase in the ***share*** of Europe in total exports, and implies that in South America this could only be done at the expense of the U.S. If this were indeed true the doubts cast on the feasibility of the plans would be more than justified. But is this necessarily so ? If the volume of equipment contemplated even in the reduced estimates of O.E.E.C. can be sold, that implies so vigorous an expansion of the world economy as a whole that the particular consideration is hardly relevant. Even total exports at $8,500 millions (as against $6,200 millions in 1948–9 and $5,400 millions in 1947) are impossible if the expansion is to take place through an international free-for-all fight (mainly by private firms) for *normally* expanding markets. The contemplated $10,600 millions are certainly beyond any reasonable expectation. But this does not mean that the very conservative British ' target ' of an export volume almost unchanged as compared with the end of 1948 is ' sounder '. If overseas development and co-operation cannot be organised even that figure is too optimistic. At this stage the O.E.E.C. would have performed the best service if it had given a factual analysis of the measures needed to enable the restoration of an expansive, multilateral world economy in which Europe can play its part.

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[1] The national plans were not drawn up on the basis of identical statistical concepts and are even theoretically not comparable. Little preparatory work seems to have been done in the past year to elaborate these most primitive conditions of the work of O.E.E.C.

Intra-European Trade. It is this aspect of the Report which will give rise to most acrimony within O.E.E.C. The Continental European countries wish to earn a surplus of some £50 millions in their trade with the U.K. to be used for purchases in the Commonwealth. The U.K. programme does not accept any deficit in its relations with Europe. The British plans are obviously sceptical about the feasibility of, first, increasing primary supplies from the Commonwealth, and, secondly, increasing British exports to the sterling area. But for the Pacific Dominions the restriction of their markets in Europe such as the British targets imply would be as unfavourable as the inability of Britain to finance her purchases from Canada by dollars earned by triangular trade with the U.S. was for the North American Dominion. Thus a wider plan should be aimed at which solves the sterling problem as a minor aspect of the dollar ' shortage '. An attempt to force Western Europe to compete with the wide plains of other Continents in agricultural bulk products would certainly decrease value productivity and should, if possible, be avoided except as a by-product of a plan for increasing *total* world agricultural production.

The cardinal question of a Western European plan in this respect, too, is the capacity of its members to implement their undertakings. It is unfortunate that O.E.E.C. has not devoted more space to the positive aspect of its duties : the proposal of policies instead of acquiescing in rather vague if outspoken criticism. Similar considerations apply to the relations of Western to Eastern Europe. If we can assume that peace will be assured and that a strengthening of Eastern Europe will not be militarily disadvantageous, the dependence of Europe as a whole on overseas supplies can be considerably reduced. The possibilities of increasing primary production are great even if we accept the fact that the industrialisation of those countries will be speeded up. The national plans and the O.E.E.C. Report both give the impression of an unresolved dilemma : on the one hand they envisage a volume of trade which, on the worst hypothesis, would be distinctly dangerous. On the other hand they are not prepared to go as far as, for example, the E.E.C. Report and thus reduce the problem of the extra-European unfavourable balance to really manageable proportions.

The attempt to tackle the problem of increasing intra-European trade has as yet not met with much success. The clearing agreements negotiated and the scheme of grants based on Marshall Aid have obstructed rather than helped a rational development.[1] The gold-clauses of the payments agreements continue to exert a restrictive pressure on trade as most members (and especially Belgium and Switzerland) prefer to receive gold or dollars to goods obtainable even in the sterling area. Only if quantitative reciprocal agreements can be negotiated can this effect be obviated so long as the serious difference in the monetary tension prevailing between the different countries does not permit the conclusion of agreements which provide for the reciprocal holding of currencies without limit, agreements which would, therefore, have an expansionist and not a restrictive bias.[2] The ' grant ' scheme, on the other hand, is not based on the relative real needs of countries on the basis of a co-ordinated plan. It is based on their current balance of payments which is a function not merely of their relative poverty, but also of their monetary and financial policy. It certainly does not give any incentive to the restoration of solvency by their own exertions.

Investment and inflation. This brings us to the chapter on the use of resources in Western Europe. The ratio of gross investment to total national output as projected, varies between 12 per cent of the national income and 23 per cent in the Bizone of Germany. In most cases it is 19–20 per cent.

As could be expected, the rate of investment is, except for Bizonia, more or less proportionate to the level of national income per head. Given the inequality in the distribution of available income, this rate of investment, however, represents in most countries a heavy burden on the poorer classes (with a parallel gross excess in luxury consumption) and will lead to continuous unsettlement. The O.E.E.C. Report recognises that inflation will threaten throughout the period if anything like this programme is attempted, and that in spite of the amount of U.S. aid which can hardly fall short of 5 per cent of total European production; but the Report does not discuss the measures by which the necessary ' voluntary or compulsory savings ' are to be secured.

THE PROBLEM OF EUROPEAN PLANNING

The difficulties in the way of elaborating a comprehensive European Recovery Programme and national plans or policies have proved to be formidable. This was only to be expected as it was impossible to devise a European programme without having first elaborated national plans and the national plans had to be devised without real knowledge of the intentions of the other members. The negative character of the first O.E.E.C. report need not therefore be taken too tragically. It has performed a very necessary function of dispelling certain dangerous illusions.

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[1] *Cf.* my article ' Intra-European Clearing ', BULLETIN, September 1948.

[2] The Belgian case shows, however, that a balance without controlled adjustment might have to be obtained at the cost of very heavy unemployment.

A new phase of positive co-ordination of the European plans opens now, however, and it would be prudent for the British Government to reassess their position and policy.

A more forward looking plan on the part of Britain, involving some real sacrifice in favour of less happily placed European and overseas countries might serve as the nucleus of a new departure in reorganising the world economy. The change in the U.S. attitude, the most striking expression of which is found in the fourth point—assistance to underdeveloped countries —of President Truman's inaugural address is a good omen. Unlike the Bretton Woods institutions and rules this gives a definite chance for the re-establishment of a multi-lateral system, and one of which utmost use should be made. The clear demonstration of the waste of hard currencies and uncertainty of performance of ' laisser-faire ' approach to European reconstruction—even where, as in the case of Belgium, it did not lead to social disintegration—has moreover convinced some members of the U.S. Administration that direct controls are required to re-establish a working European system. The British Government should at the earliest date utilise these important changes of the background to obtain a more secure foundation for European reconstruction on which its plan depends.

(1) The first and foremost condition is the clarification of the United States policy in diminishing the strain of readjusting the world dollar balance after the prospective end of Marshall Aid. This demands (*a*) unilateral U.S. tariff concessions to increase direct exports, (*b*) toleration of a system of discrimination against her within Western Europe and in Western Europe's leading relations with other countries, *i.e.* the revision of the Marana Charter, (*c*) some indication of the U.S. domestic policy in maintaining demand at home, (*d*) some indication of the magnitude of non-tied loans or grants to development areas,

The task before Europe is to achieve not merely an overall equilibrium of payments but also a substantial excess of exports in order to resume investment (and repayment of war debts) so as to strengthen its supply position and enable it to obtain reasonable terms of exchange. While the extraordinary dependence on U.S. and other dollar areas supplies must and will be reduced as European production recovers, there is no reason to aim at a bilateral *European* as against a *world* dollar balance, though unilateral tariff concessions by the U.S. could promote the attainment of a better $ equilibrium. All efforts should now be concentrated on proving to the U.S. that effective mutilateralism will almost exclusively depend on her policy during and after Marshall Aid. If by international co-operation the U.S. balance of payments can be made unfavourable with non-European countries through extra-European development programmes and by special purchasing arrangements supporting a suitable stabilisation policy in the U.S.; effective multilateralism on a world scale would have been given a new chance. The *flexible* Marshall Aid technique as contrasted with the grossly inadequate *fixed* quotas of the Bretton Woods institutions could provide a firm basis for this second effort at international reconstruction. As long as there is—as there obviously *now* is—a chance of securing full U.S. participation in such a world-wide scheme other, much less attractive alternatives, should be abandoned as their immediate restrictive implications would be bound to cause disillusionment in the U.S. This view does not imply a retraction of previous criticism against Bretton Woods as unjustified, but represents an acknowledgment that circumstances and possibilities in the dominant economy, the U.S., have changed.[1]

Unlike the case against *monetary* multilateralism, the case against non-discrimination is more urgent than ever before. There is grave danger that the U.S. help, instead of being dedicated to building up a viable regional unit, will be used to maintain strongly autarkic national units whose position in a seemingly non-discriminating multilateral world will be so weak and unstable as to crumple at the first stress, whether caused by a reappearance elsewhere of cyclical fluctuations or because of the steady unfavourable trend of the terms of trade. Much educative work has to be done in this respect. We must obtain the consent and co-operation of the U.S. in the organisation of a strong European economic unit[2]—which for a period *far longer* than Marshall Aid would demand consent by the U.S. to preferential arrangements both within Western Europe and between Western Europe and certain complementary outside territories. Yet even enlightened economists with obvious sympathy for the plight of Europe interpret this plea as a distrust of and hostility to U.S. prosperity.[3] Nothing is further from the intention of those who advocated a close economic co-ordination of Europe. What should be attempted in the interest of all is to prevent a *widening* discrepancy between the U.S. and the rest of the world and the tendency by the U.S. under the slogan of non-discrimination to secure a monopoly of, and prevent others from developing, industries with the greatest degree of increasing returns, which would inevitably result in this widening of the differences in the standard of life.

(2) The second problem which requires urgent clarification is the policy of our European partners. The promotion of various schemes to achieve immediate ' customs unions ' in Europe has become increasingly fashionable especially in countries which by their adherence to laisser-faire principles in a period of grave shortage were unable even to re-establish their own internal economic stability. Alternatively a ' pooling of investment ' is suggested. These proposals are likely to discredit all efforts to begin the slow and difficult process of co-ordinating the varied and in many ways

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[1] *Cf.* my critique of Lord Keynes's last article in defence of Bretton Woods, ' The U.S. and the World Economy ', BULLETIN, October 1946, p. 322.

[2] *Cf.* ' Discrimination ', BULLETIN, July and August 1948, and ' The U.S. and International Economic Equilibrium ' in *Foreign Economic Policy for the U.S.* ed. S. Harris, Harvard, 1948.

[3] *E.g.* Professor S. Harris in *Foreign Policy for the U.S. op. cit.* p. ix, and a review of this book (by K. Hutchinson), in the *New York Times*, November 14th, 1948

antagonistic and competitive national economic systems in Western Europe. A premature ' opening ' of frontiers would inevitably cause large-scale dislocation, bankruptcy and unemployment without any tangible advantage. Moreover so long as the relative monetary tension in different countries is so largely divergent, convertibility of currencies would merely transmit the inflation in the ' weakest ' monetary system to the rest. It has been shown in the case of the Benelux countries, and even more clearly in the case of France and Italy, that customs unions cannot be made effective without co-ordinating the whole of economic, monetary and fiscal policy in the respective countries. A premature attempt to ' liberate ' trade would merely result in the breakdown of controls of the country which has succeeded in maintaining stability, and, probably, in private cartel arrangements to avoid the readjustments the promotion of which is the sole justification of a customs union.[1]

Effective controls must be secured in countries in Western Europe which have weakened them which would *guarantee the execution of plans* agreed upon by the member countries. This is the only point on which even at this early date a much stronger statement by the O.E.E.C. would have been indispensable. Negative doubts thrown on the possibility of carrying out the plans, however courageous, are not enough.

For the first period, regional planning and ' unification ' must restrict itself to measures which do not cause widespread losses and unemployment in any of the participating countries. This still leaves ample scope for increasing the complementarity of the participating countries as each is engaged in increasing its production by anything up to one-fifth in the next four years.

An important step in this direction is to undertake a thorough investigation of the possibilities of obtaining faster and greater increases in productivity by switching investment. It is probable, for example, that the general mechanisation (as contrasted with the introduction of special devices due to technical progress) of British agriculture has long passed the point of decreasing returns.[2] A switch towards helping French agriculture in increasing its productivity would unquestionably benefit Europe. Conversely certain of the heavy industrial expansion in France would duplicate British production, or at least does not promise an equivalent increase. Within certain limits dictated by security and social reasons, investment plans of each of the member countries could be so modified as to result in a greater yet balanced increase of production of the area as a whole, while contributing to the balancing of *interregional* exchanges. This latter is necessary since otherwise interregional trade results in losses of gold to some countries while others receive grants.[3] The principle of interregional planning is to concentrate on the export of high-value non-essentials to America as much as possible, but not to restrict unduly interregional purchases of non-essentials (subject to the above qualifications). Balance of payments considerations should as much as possible be eliminated within the region. Unfortunately grave monetary divergence will limit the complete implementation of this principle unless barter exchanges can be arranged to eliminate monetary disturbance. Such reciprocal exchange arrangments would also be needed for the carrying out of the investment switches discussed above. No country can give up an investment project (even if it is less remunerative) if it is not certain of obtaining the products which that project would have secured.[1]

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[1] Such cartel arrangements are being officially fostered by France and Italy.

[2] Cf. K. A. H. Murray, ' The Outlook for British Agriculture ', *Lloyds Bank Review*, January, 1949, esp. pp. 62 and 72.

[3] *E.g.* British payments to Belgium while French deficits are financed by grants.

Certain general rules might be suggested : first, the attempts should in the beginning be concentrated upon large investment projects such as agriculture, steel, engineering and textiles; secondly, the arrangements must be made by Governments and not by private industry, and their execution supervised by Governments; thirdly, the criterion should be the increase in total production and interregional exchange over a period of four years.

Apart from new investment certain measures of standardisation and rationalisation might be attempted : first it is important to establish interregional standards, especially in capital goods and components, similar to what is being attempted in the motor-car industry in Britain; secondly certain research and development schemes might be regionally pooled and specialisation attempted; thirdly a first beginning might be made towards a regional export policy by establishing joint export promotion agencies outside the region instead of trying to engage in oligopolistic competition. All these ventures, however, must be made under strictest Government supervision and presuppose a complete reorganisation of O.E.E.C., strengthening its authority. A Ministerial Council advised in detail of the progress of the implementation of the plans is the first requirement. This has been recognised by the U.S. authorities, and, rather belatedly by the British Government.[2]

(3) Provided some more definite and favourable picture emerges of the prospective policies of the U.S. and our European partners this country should contribute its share in carrying the burden. The Government should aim at a much greater increase in productivity and of the standard of life than is indicated in the published documents for the first year of the Marshall Plan ending in July 1949. This would permit the contemplation of a greater increase in *our exports of capital goods* to European countries and might have envisaged an increase in *their* dollar-earning capacity by an *increase of their exports to extra-European* countries. Alternatively, more imports could have been planned from European countries and balanced by a

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[1] Net investment might be ' remunerative ' between countries. But such investment will be impeded by the fact that the U.S. could not permit *loans* between member countries when it makes free *grants* itself. The difficulty could be eliminated by barter arrangements giving favourable terms to the country which delivers the implements *first* and is paid for them out of the *increase* in production which these implements make possible. If, *e.g.* Britain sends tractors to France, France might bind herself to sell wheat at favourable terms two years hence.

[2] The statistical material at the disposal of O.E.E.C. is scanty and in many cases unreliable. The preparation of detailed and uniform statistics should be enforced without delay. Even in this county insufficient personnel hampers the task of the Government. Essential statistics *e.g.* on stocks, on productivity are lacking.

compensating increase of *our capital goods exports to overseas countries.* Of course, this procedure would have left extra-European countries with a considerable dollar deficit, as they would have to pay for our exports in dollars. The *closing of this ultimate-non-European-dollar gap* would have to be done either by America lending to extra-European countries or an increase in imports by America from these countries.

The advantages of this procedure are to show the Americans that Britain is willing to do her utmost to promote European recovery, but that this would depend on their being willing to lend to non-European countries or, alternatively, on their being willing to enable us to increase our sales to those countries, *i.e.* those countries giving our *exports*, at any rate temporary, preferences (either through tariffs or through reciprocal purchase agreements involving partly dollar payments for our exports) while America deliberately set herself to increase her *imports* from the same countries.

It would have been much more attractive for the Europeans and the Dominions, whose public opinion would have been mobilised in our favour.

If satisfactory agreements can be secured on the first two points there is every hope that British productivity could be increased by 10 per cent more than contemplated, and British exports attain a level of 165–175 per cent of pre-war. Unless such agreement can be secured it is questionable whether any of the major assumptions of the plan and therefore its targets can be fulfilled. In particular a U.S. disequilibrium would certainly render the export targets unattainable. A lack of co-ordination in Europe especially between Britain and the Bizone would destroy the premise of unchanged terms of trade.

It is possible to argue that in the absence of agreement on these points the only way in which France and the other European countries which have abolished war-time controls can be forced to adapt their economy to the new position is by harsh commercial policy. But even if this were the case the timing of the publication of the British plan in its present form was most unfortunate : it should have been put forward only as an alternative to a more multilateral solution, as an indication of the measures which we should be forced to take if the conditions of the more multilateral solution were not accepted by the other Governments.

On any hypothesis strict bilateral balancing at this stage is to be deplored, however necessary it may be to allow for it as a *pis aller* after all efforts at agreement have failed to produce satisfactory guarantees both within and outside Europe. In that case, however, much farther-reaching reconsideration of policy will be required. These indications and certain ministerial statements which caused much indignation in the U.S. show how far British official circles are from appreciating the basic nature of the European and British problem. The more primitive forms of the ' multilateral equilibrium ' approach, and the consequent desire to lift controls, continue to bedevil their views and policy.

T. BALOGH.

SWEDEN'S ECONOMY 1946–1949

1. THE GENERAL DEVELOPMENT

The most notable development of Sweden's economy in 1948 was a further rise in private consumption and in public consumption and investment. A slight fall in private investment was more than offset by the improvement in the current account of the balance of payments.

Table 1 provides an analysis of the main changes on the supply and demand side. Gross national product at factor cost rose 9 per cent between 1947 and 1948. Public expenditure rose by 11 per cent between 1946 and 1947, and 18 per cent between 1947 and 1948, while private expenditure rose 12 per cent and 6 per cent respectively. The sharp rise in the public sector reflects especially the expansion of expenditures by local authorities. Private gross investment decreased by 9 per cent between 1947 and 1948 after an increase of 19 per cent from 1946 to 1947. Private consumption, on the other hand, between 1946 and 1948 had risen 8 per cent to 9 per cent annually. This increase in consumption can be explained principally by increased wage incomes, and, in 1948, by the following additional factors: allowances to families with children, reduced tax rates for most of the consumers, and an increase in old age pensions.

TABLE I

Balance for Goods and Services at Current Prices

(Millions of Kronor)

Supply	*1938–39*	*1946*	*1947*	*1948*
Gross National Product at factor cost* ...	11,970	21,520	23,340	25,380
Plus Indirect Taxes	680	1,870	1,750	2,060
Minus Subsidies	70	330	390	390
Imports, c.i.f.	2,270	3,390	5,220	4,800
Total Supply (gross)†	*14,850*	*26,450*	*29,920*	*31,850*
Realised Demand				
Private Domestic Gross Capital Formation ...	2,130	4,180	4,960	4,540
Public Domestic Gross Capital Formation ...	800	1,830	1,900	2,420
Inventory Changes	250?	100?	500	100?
Exports of Goods and Services	2,220	3,300	3,780	4,360
Private Consumption	8,370	14,840	16,190	17,550
Public Consumption	1,080	2,200	2,590	2,880
Total Realised Demand	*14,850*	*26,450*	*29,920*	*31,850*

*Because of simplicity of presentation and insignificant size of the item, net interest from abroad is included. Therefore, gross national product here equals gross national income. Net national income for 1948 is probably between 21,000 and 22,000 million kronor.

† Since imports are computed gross, total supply should not be taken to mean gross national income.

If price changes are eliminated by expressing the data at 1946 prices we obtain Table 2. It shows that gross national product at 1946 market prices rose 3 per cent between 1946 and 1947, and 2 per cent between 1947 and 1948. Total employment during the period 1946–1948 increased 1 to 2 per cent. The index series of prices, appropriate for deflating the total gross national product, is estimated to have risen 12 per cent between 1946 and 1948.

Table II

Balance for Goods and Services at 1946 Prices

(Millions of Kronor)

Supply	*1946*	*1947*	*1948*
Gross National Product at Market Prices	23,060	23,800	24,250
Imports	3,390	4,730	4,160
Total Supply (gross)	*26,450*	*28,530*	*28,410*
Realised Demand			
Private Domestic Gross Capital Formation	4,180	4,660	3,970
Public Domestic Gross Capital Formation	1,830	1,790	2,150
Inventory Changes	100?	470	90?
Export of Goods and Services	3,300	3,420	3,600
Private Consumption	14,840	15,760	16,120
Public Consumption	2,200	2,430	2,480
Total Realised Demand	*26,450*	*28,530*	*28,410*

The survey for 1948 presented last spring by the National Budget Delegates included some rough forecasts covering the whole year 1948. Some of these target figures were given in real terms, and were intended to show the effect of the investment plan and the import plan on the supply of consumer goods; some were in current prices to indicate the extent of the inflationary gap. A moderate increase in the volume of production, a decline of investment, an almost complete cessation of inventory expansion, and a certain improvement in the terms of trade have made possible a slight increase of private and public consumption in 1948 compared to 1947 and a reduction of the deficit in the current balance of payments. This deficit was 440 million kronor, whereas the survey envisaged a zero deficit. Consumers' prices rose approximately as much as estimated, but consumption expenditures have not reached the level which was anticipated.

2. Foreign Trade

A favourable development of Sweden's terms of trade in conjunction with a certain increase in the volume of exports and a larger reduction of imports brought about a considerable improvement in the balance of trade during 1948. The deficit of the balance of trade, imports being calculated c.i.f., during January–November 1947, amounted to 1,900 million kronor; for Jan.–Nov. 1948 the deficit was 920 million. In October 1948 for the first time since the end of 1945 there was an export surplus, which amounted to about 15 million. During November the export surplus rose to 35 million.

Index numbers comparing the first ten months of 1948 with the same period in 1947 indicate a 5 per cent increase in the volume of exports, whereas the volume of imports declined by 12 per cent. Export prices increased 16 per cent and import prices about 6 per cent. In the autumn of 1948, however, the improvement of the terms of trade was slightly reversed.

Tightening of import controls caused a conspicuous change in the structure of imports from 1947 to 1948. The restriction of imports affected mainly consumer goods, the volume of which has been cut 38 per cent compared to 1947. In 1947 they were 22 per cent of total imports, in 1948 16 per cent. On the other hand, the proportion of raw materials, machinery, and, above all, fuel in total imports has increased. There have been only minor changes in the structure of exports.

For 1948 imports are estimated to have reached a value of 4,800 million kronor (c.i.f.) and exports 3,900 million. Earnings from shipping services are expected to fall to 460 million, and, as shown by Table 3, the balance of current payments is expected to show a total deficit of 440 million kronor. The total depletion of foreign exchange reserves during 1948 can be estimated at 300 million kronor, or 140 million less than the expected deficit in the current balance. If capital transactions are included, this discrepancy becomes even greater. The explanation is that, owing to the tightening of currency control in 1948, payment in anticipation of actual imports diminished, while at the same time delivery of pre-paid imports took place on a considerable scale. This acted as a check on the drain of foreign exchange reserves.

TABLE III

The Current Balance of Payments, 1946–1948, at Current Prices

(Millions of Kronor)

	1946	1947	1948 (Preliminary)
Import of Goods	3,390	5,220	4,800
Export of Goods	2,550	3,240	3,900
Balance of Trade	—840	—1,980	—900
Net Freight	550	510	460
Other Services, net	200	30	—
Balance of Current Payments	—90	—1,440	—440

3. INVESTMENT ACTIVITY

The heavy increase in total investment activity between 1945 and 1947 turned into unmistakable stagnation from 1947 to 1948. A continuous rise in state and communal investment has been more than balanced by a decline in private investment.

TABLE IV

Investment, 1946–1948. 1946 Prices

(Millions of Kronor)

	1946	*1947*	*1948*	*Index, 1946=100*	
				1947	*1948*
Private Gross Investment	*4,176*	*4,659*	*3,974*	*112*	*95*
Housing	1,562	1,596	1,144	102	73
Manufacturing and Mining ...	1,471	1,785	1,613	121	110
Power and Light	126	153	177	121	140
Agriculture (buildings and machinery)	374	391	402	105	107
Transportation	556	644	547	116	98
Other	87	90	91	103	105
Public Gross Investment	*1,830*	*1,790*	*2,150*	*98*	*117*
State	1,211	1,086	1,288	90	106
For: Enterprises and Corporations	586	651	733	111	125
Military	451	268	341	59	76
Local	619	704	862	114	139
Total Gross Investment	*6,006*	*6,449*	*6,124*	*107*	*102*
For Public and Private Housing	1,654	1,733	1,359	105	82

The value of total investment measured in current prices increased 1 per cent and was thus about on the 1946 level. This is mainly the result of a fall in building activity, while other investment rose slightly in volume, particularly that in machinery and engineering products. Whereas in 1947 (January–November) the main items in this category (machinery, ships and motor-cars, instruments, and weapons) showed an import surplus of 255 million kronor, they showed an export surplus of 18 million kronor for the same period in 1948, which was primarily the result of a steep increase in the exports of these goods from 514 to 723 million kronor.

4. PRIVATE AND PUBLIC CONSUMPTION

Total consumption expenditures rose 9 per cent between 1946 and 1947, and about 8 per cent between 1947 and 1948. In real terms, however, the increase was only 6 per cent and 2 per cent. The most important changes in the structure of consumption between 1946 and 1948 are the relative decrease in food consumption, especially of fruit, and the relative increase in the expenditure on clothing. Indices of retail trade turnover, by branches of activity, indicate also a slower rate of increase between 1947 and 1948 than between 1946 and 1947.

TABLE V

Consumer Expenditures, 1946–1948, at 1946 Prices

(Millions of Kronor)

	1946	*1947*	*1948*
Food *of which*	6,350	6,470	6,360
Flour, grain and bread	*580*	*570*	*580*
Potatoes, vegetables, fruit and berries	*950*	*860*	*740*
Milk, butter, margarine, and cheese	*1,080*	*1,100*	*1,140*
Meat and bacon	*890*	*900*	*870*
Liquor and tobacco	*1,310*	*1,440*	*1,440*
Housing	1,340	1 400	1,460
Fuel and light	670	690	700
Clothing	2,440	2,740	3,010
of which Shoes	*290*	*330*	*390*
Inventories	1,590	1,840	1,870
Miscellaneous	2,450	2,620	2,720
Total Consumption	*14,840*	*15,760*	*16,120*
Index...	100	106	109

Public consumption was 11 per cent of gross national product in 1948, as against 9 per cent in 1938–39. Wages and salaries accounted for 68 per cent and purchases of goods and services for 32 per cent of the 1948 public consumption. The consumption by local authorities rose 50 per cent between 1946 and 1948, while the Central Government's consumption rose only 10 per cent. This expansion by the local authorities has been made possible by heavy increases in income tax.

5. PLANS FOR 1949

The starting point for the 1949 import plan is an estimate of the foreign exchange resources which will be available for import payments. The largest part of these foreign exchange resources is obtained by the export of goods.

The forecast of exports is shown in Table 6. For 1949 an increase in the quantity of exports of about 100 million kronor at 1948 prices is expected. This increase in quantity, however, is expected to be more than offset by a decline in prices.

TABLE VI

Exports, 1947–1949

	1947		1948 (Estimate)		1949 (Prognosis)	
	Millions of Kronor	%	Millions of Kronor	%	Millions of Kronor	%
Food	123	3.8	130	3.3	125	3.3
Wood products, paper and pulp	1,715	52.9	2,000	51.3	1,805	48.1
Iron ore, iron and steel ...	576	17.8	710	18.2	780	20.8
Machinery and equipment	394	12.2	500	12.8	450	12.0
Transportation and equipment	178	5.5	240	6.2	310	8.3
Other	254	7.8	320	8.2	280	7.5
Total	*3,240*	*100*	*3,900*	*100*	*3,750*	*100*

Export incomes are supplemented by estimated net freight earnings of 460 million kronor. The other items in the current balance of payments are expected to show a small deficit, bringing the total on the credit side to 4,200 million kronor.

In 1949 Sweden will make certain special payments, according to the Washington Agreements, in settlement of German assets in Sweden and will grant certain export credits, principally for ships, to Norway. On the other hand, Sweden will draw on her sterling balances to the amount of about 150 million kronor, and will receive some Marshall credits.

According to the import plan, imports (c.i.f.) are expected to reach 4,200 million kronor, which means a cut of about 1,000 million kronor compared with 1947, and about 600 million kronor compared with 1948. The volume of imports for 1949, however, seems to correspond fairly well with the 1936–39 average. The cuts have been made in such a way as to safeguard imports of fuel, raw materials, and other essential supplies, while the imports of consumers' goods will show a further decline. Table 7 shows the planned structure of imports.

Total gross investments for 1948 reached almost 7,000 million kronor. The 1949 forecast of total investment envisages a fall of about 300 million kronor. Besides the building and construction field, a significant decrease of investment in motor vehicles and ships is anticipated. Investment in 1947, however, claimed a larger share of the country's resources than in the years just preceding the war. Part of the large post-war investment has been financed by a considerable reduction of foreign exchange reserves. If domestic gross investment is reduced by the amount of the deficit in the current balance of payments, the difference indicates the extent to which investment has been financed from domestic savings (including the budget surplus, as well as corporate and private savings).

TABLE VII

Imports for 1947, Estimated Imports for 1948, and Imports for 1949 based on the import Plan

(Millions of Kronor, c.i.f.)

	Imports 1947	Imports (Estimate) 1948	Planned Imports 1949
Foodstuffs (including fertilisers)	880	830	707
Fuel	670	840	873
Iron and Steel, Metals, Machinery, Instruments, Transportation equipment, Electrical material, Manufacturing equipment	1,554	1,460	1,150
Chemicals	330	330	256
Oil lubricants	34	30	11
Textiles	977	795	618
Leather	131	85	85
Rubber	70	75	63
Other	576	355	437*
Total	*5,222*	*4,800*	*4,200*

*This figure is not quite comparable with the corresponding figure for the preceding year

Consumption has been computed as a residual. Import cuts of 600 million kronor are partly counterbalanced by a production increase calculated at 400 million kronor. Since investment will be 300 million kronor lower, but the export volume about 300 m. kronor higher, and since public consumption will be up by about as much, 1949 private consumption at 1948 prices will become about as large as during 1948, if the building up of inventories going on in the last few years ceases.

The significance of these estimates is that consumption will be fairly stabilised at the 1947 level, which is relatively high and means a real standard of living of not less than 10 per cent above pre-war. The effect of the gradual restriction of imports will be considerably neutralised by increased production and by some reduction in investment, particularly in residential housing construction.

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NOTES ON ESTIMATING NATIONAL INCOME COMPONENTS

The estimates shown here were prepared by a research class at the University[1], composed mainly of third-year undergraduates who were working on these estimates primarily as a means of learning about statistical sources and how to handle them. We were fortunate to have the very generous help of the following graduates who advised the groups into which the class was divided on statistical methods: Mr. Richenberg and Mr. Scott, Students of Nuffield, and Mr. Berman on the research staff of Nuffield. Miss Uhde of of St. Hugh's kindly acted as Hon. Secretary.

The main principle on which we worked was that the total national income could be more accurately estimated than either profits, investment or saving, these components being therefore obtained as residuals. Secondly, we decided to take the official estimates for 1947 as correct, and to estimate the changes between 1947 and 1948. The definitions in the last National Income White Paper (*Cmd.* 7371) were also followed throughout. In addition the methods used were applied to the 1946 estimates to provide 1947 estimates which could be checked against the official one.

We are not attempting here to give a complete account of the sources and calculations used, since that would involve more space than would be justified. The work of each group is summarised below with details given of results or methods which throw some new light of technical interest on national income analysis. The main results are given in Tables I and II, together with official estimates for 1947.

TABLE I

Estimated National Income and Expenditure in 1948 and 1948 (£ millions)

	1947	1948		1947	1948
Rent	400	405	Consumption	7,421	7,960
Interest and Profits	2,785	3,370	Government Expend.	2,168	2,010
Salaries	1,720	1,800	Net Investment	1,245	1,610
Wages	3,530	3,970	Plus Exports	1,430	2,135
H.M. Forces' Pay	335	225	Less Imports	−2,105	−2,315
			National Expend. at market price	10,159	11,400
			Plus Subsidies	442	495
			Less Indirect Taxes	—1,831	—2,125
National Income	8,770	9,770	National Expenditure	8,770	9,770

TABLE II

Private Income and Outlay (£ millions)

	1947	1948		1947	1948
Rent, interest and profits	3,642	4,155	Consumption	7,421	7,960
Wages and salaries	5,250	5,770	Direct Taxes	1,785	1,990
Pay and allowances of H.M. Forces	335	225	Savings	705	925
Transfer incomes	684	725			
Aggregate Private Income	9,911	10,875	Private Outlay	9,911	10,875

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[1] The main estimates were first printed with a commentary in the *Financial Times* (28/2/49). They have subsequently been slightly revised.

ESTIMATE OF GROSS NATIONAL INCOME

Research Group :—

Convenor : M. J. Farrell (*New College*).

Members : J. R. Gunningham (*Worc.*), *J. C. Langley* (*Queen's*), *G. B. Richardson* (*C.C.C.*), *F. J. H. Rogers* (*Magd.*), *J. R. Sargent* (*Ch. Ch.*).

For the purpose of estimating the gross national income in 1948, the economy was divided into five main sections, the value of the output of each sector being estimated separately. The sectors are :

(*a*) Mining, Manufacturing, Building and Construction, and Public Utilities.

(*b*) Agriculture, Forestry and Fisheries.

(*c*) Services (comprising Transport, Distribution, Commerce and Finance and Personal and Professional Services).

(*d*) Government.

(*e*) Miscellaneous.

The procedure adopted was to compute the value of the output of each sector in 1946, and to apply appropriate price and quantity indices to each result in order to arrive at the corresponding figure for 1947. The estimate of the 1947 gross national income obtained by this method was then adjusted to the official estimate given in the *White Paper on National Income and Expenditure* (*Cmd.* 7371).

The methods used for the different sectors were as follows :

(*a*) *Mining, Manufacturing, etc.*

These industry groups were treated together as one sector because they are all included in the Interim Index of Industrial Production, and because the available statistics relating to each of them are similar. The value of this group in 1946 was found as a residual (£3,950 millions) by deducting the value of other sectors from the known gross national income in 1946. A check on this estimate was made by taking :—

(i) the wage bill (W) for each of the constituent industries in 1946 (Given in Cmd. 7371, Table 3) ;

(ii) the ratio (*r*) of net output to the wage bill for each industry in 1935 (Given in the 1935 Census of Production); and

(iii) the 1938 and 1946 ratios (R_{38} and R_{46}) of total output to wage-bill.

From these the net output O of any individual industry X was given by the formula $O_x = W_x \times r_x \times \frac{R_{46}}{R_{38}}$

The assumptions involved here are : (*a*) that the ratio of each industry's total net output to its wage bill was the same in 1938 as in 1935, and (*b*) that this ratio changed between 1938 and 1946 in exactly the same proportion as the ratio of total net output to total wage-bill for all industries. Now it is apparent that the Board of Trade has estimated the added value ofeach industry in 1946 and the total added value of this sector. This estimate of the total is doubtless more accurate than any unofficial estimate could be and we attempted here to infer what it was. Since the weight given to each industry in the new Index (k_x) is proportionate to its share in total added value, we can estimate the official estimate of $\Sigma(O)$, the total output of this sector, as follows :

$$\Sigma(O) = O_x \times \frac{1{,}000}{k_x}$$

In this way, an independent estimate of $\Sigma(O)$ could be made for each value of O. This was done for each of the ten industries, and in addition two other estimates of $\Sigma(O)$ were made (not of course independent either of the previous estimates or of each other) by grouping certain industries together. The resulting estimates of $\Sigma(O)$ were fairly well concentrated—around £3,900 millions if we take for (iii) the ratios of total civilian income to national wage-bill, and around £4,100 millions if we take the ratios of product of non-service industries to wage-bill in those industries.[1] The difficulty of obtaining accurate ratios led to the use of the residual for this sector.[2]

An appropriate quantity index was available in the Interim Index of Industrial Production, giving a number of 108.3 for 1947, and 121.3 for 1948 (1946=100). But there was no similarly obvious choice for the price index. An *ad hoc* index was therefore constructed. An index of the prices of manufactures was constructed by taking a weighted average of several sorts of price relatives (so as to avoid the obvious possibilities of error which would arise if we relied on any single Index). Export 'Value' indices were used for engineering and food products; Wholesale Price indices for coal, textiles, building materials, metal products and chemicals; the appropriate Retail Price index for clothing (adjusting for subsidy changes); and hourly earnings indices for shipbuilding, printing, building and utilities. Weights were taken from the production index (weights for sub-groups being allocated according to employment), and the resultant composite index numbers were 112.7 for 1947 and 124.3 for 1948 (1946=100). Next Import ' Value ' indices were taken for goods entering the manufacturing sector, formed into a weighted index for the import content of manufactures, and subtracted from the composite index (imports being assumed to have been one-fifth of gross value of manufacturing in 1946). This gave corrected price index numbers for the factor cost of added value as 107.3 in 1947 and 117.0 in 1948.

It would be preferable to multiply the monthly indices together if they were available; multiplying the annual indices only gives the same result as the longer method if there is no correlation between the movements of the price and quantity index numbers.

(*b*) *Agriculture, Forests and Fisheries*

The method used for this sector was similar to that outlined above, in that the value of output in 1946 was estimated, and multiplied by price and quantity indices in order to get the corresponding figure for 1948. On the basis of data given in the *Monthly Digest of Statistics* and *Agricultural Statistics*, 1938, an estimate was made of the gross value of agricultural output in 1937. The figure for each individual commodity was then multiplied by the appropriate quantity index and price index, both indices being based on material published in the *Monthly Digest*,[1] to give the value of output in 1946; this was estimated at £671.5m. To obtain the corresponding figures for 1947 and 1948 an index was constructed of ' value sold off farms '. This index covered the main farm products, which comprised 73 per cent of the value sold off farms in 1946.[2]

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[1] See BULLETIN, Vol. 10, p. 315.

[2] If a value of about £4,000 m. is correct for $\Sigma(O)$, the Board of Trade's estimate of the value added by each industry in 1946 can be inferred from the formula above

In order to arrive at the value of net output, an estimate had to be made of the value of feeding-stuffs and fertilisers used. Two estimates were made of the value of feeding-stuffs consumed in 1946. The first was derived from the tonnage consumed and the average price per ton (the relevant figures being taken from the *Annual Abstract*), and the second by applying price and quantity indices (again based on data published in the *Monthly Digest*) to an estimate for 1938 made by Kendall (in the *Journal of the Royal Statistical Society*, 1941). Both methods led to approximately the same result, which was multiplied by price and quantity indices to obtain the figures for 1947 and 1948. Similarly, indices based on material in the *Monthly Digest* were applied to Kendall's estimate of the value of expenditure on fertilisers in 1938. The total was deducted for each year from the gross value. Since the official price indices take account of subsidies, the value of subsidies paid to agriculture in each of the three years was added.

The value of the output of fisheries in 1946 and 1947 was obtained from the *Annual Abstract of Statistics*, and the 1948 was obtained from the volume index and the assumption of constant price. In the case of forestry, the latest figures of home production relate to 1930, and in default of more recent information, it was assumed that the 1930 ratio of the value of output of forests to the value of agricultural output remained unchanged.[3]

(*c*) *Services*

In this section, separate estimates were made for transport and communications, distribution, commerce and finance, and personal and professional services, other than domestic services, and domestic service. The value of output of each group in 1938 has been estimated by T. Barna,[4] and his estimates were used as a starting-point. In the case of transport and communications, the 1938 figure was multiplied by an index of employment and an index of earnings. The first was constructed from material available in the *Monthly Digest*, and the second from wage-rate indices published by

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[1] There were a number of minor deficiencies in the statistics relating to quantity, and the official price index covers only England and Wales; but the error resulting from these gaps should be small.

[2] The most serious omission from the index is that of fruit, vegetables and glasshouse products, which accounted for 16.4 per cent of the 1946 gross output. It was assumed that the value of the output of this group changed in the same proportion as the value of the items included in the index.

[3] In other words, the value index constructed for agriculture for the period 1946–48 was assumed to be applicable also to forestry and fisheries.

[4] BULLETIN, Vol. 8, p. 213.

Professor Bowley (in the *London and Cambridge Economic Service*) and from earnings indices from the Ministry of Labour. Separate calculations were made for road transport, railways, the Post Office, and other transport and communications services.

The value of the output in 1946 of distribution and of ' commerce, finance, etc. ' was estimated by taking Barna's figures for 1938, and assuming that the ratio of the value of output in each group to the total (national) value of output changed between 1938 and 1946 in the same proportion as the ratio of employment in each group to total employment. The 1946 figures were multiplied by an index of employment in each sector (based on data published in the *Monthly Digest*) and by an index of earnings. The earnings index for distribution was based on changes in the time rates of various grades of distributive workers, as given by the Ministry of Labour.[1] For commerce, etc. the index of salary rates constructed by the National Income group of the class was used. In the case of domestic service, the estimate given by Seers[2] for the value of output in 1946 was taken, and multiplied by an assumed index of employment. Changes in the earnings of women workers (as given by the Ministry of Labour earnings inquiries) were taken as indicative of changes in the earnings of domestic servants.

The estimates of the 1938 value of output published by Barna in the article referred to did not include depreciation, and Distribution and Commerce was raised by 5 per cent, and Transport by 10 per cent to cover this, since we are concerned here with gross income.

(*d*) *Government*

The estimates of government wages and salaries, and of depreciation in the government sector, were provided by the Public Finance group. The former were obtained by applying employment indices to wages and salaries of H.M. Forces, Central Government employees and local government employees obtained from estimates by Seers,[3] and the latter was obtained by extrapolation.

(*e*) *Miscellaneous*

This item includes the rents of dwellings and premises of non-profit-making institutions (about £330 millions[4], net income from foreign investments (about £150 millions) and indirect taxes paid by foreigners. Depreciation was estimated by allowing for new depreciation allowances on the increased new capital formation. We have, in the 1948 *National Income White Paper* (*cmd.* 7371) a series of figures for depreciation starting at £500m. in 1944, and rising by successive stages to £775m. in 1947. These increments are due (1) to an increase in the annual rate of capital formation, (2) to the increase in depreciation allowance on new capital which took effect in 1946, retrospective to 1944, and (3) to old capital equipment which was written off when new equipment became available.

This last-mentioned category is considered to account for a large propor-

[1] ' Time Rates of Wages and Hours of Labour ' ; an annual publication.

[2] BULLETIN, Vol. 9, p. 253. [3] BULLETIN, Vol. 10, p. 237. [4] BULLETIN, Vol. 9, p. 253.

tion of the jump of £175m. in the depreciation allowances between 1945 and 1946. The rise of £125m. estimated to have occurred in 1948, on the other hand, is mainly due to the depreciation allowance on the high rate of new capital formation in 1947 and 1948.

The results for 1946 are shown in the first column of Table III, and in the second column the first estimates for 1947. Assuming the official estimates were correct, it appears that the indices used involved an excess of £135m., presumably because of an upward bias in the price indices. It was assumed that the error was about proportional to the increases from 1946 to 1947 in each part of the business sector, which led to the corrected estimates given in the third column. The value indices for 1948 were then applied to these estimates, except that it was assumed that a similar upward bias existed in the price indices, leading to the same proportionate over-statement of increases as before.[1] An increase of £1,000 millions in net national income is therefore estimated by these means.

TABLE III

Contributions of sectors of the economy in 1947 and 1948

	Estimate for 1946	*Estimate for 1947*	*Corrected Estimate for 1947*	*Value relative for 1948 (1947=100)*	*Estimate for 1948*
Agriculture	825	895	885	107	945
Manufacturing and Mining ...	3,950	4,660	4,560	120	5,480
Service Industries	2,235	2,470	2,445	109	2,660
Total Business Sector	7,010	8,025	7,890	115	9,085
Government Sector	1,335	1,175	1,175	94	1,100
Other	480	480	480	101	485
Gross National Income	8,825	9,680	9,545	112	10,670
Less Depreciation	725	775	775	116	900
Net National Income	8,100	8,905	8,770	111	9,770

ESTIMATE OF THE BALANCE OF PAYMENTS

Research Group :—
Convener : I. Mackinnon (Ball.)
Members : D. C. Corner (Univ.), Mrs. Little (St. Anne's].

On the debit side of the balance, the value of commodity imports was obtained from the Board of Trade returns. These figures, however, are c.i.f. and a correction factor was applied to these in order to arrive at the f.o.b. value. The correction factor was (rather roughly) estimated by comparing, for 1946, 1947 and the first half of 1948, the figures for the f.o.b. value of imports published in *Cmd.* 7520 with c.i.f. estimates from the *Board of Trade Journal*, and an overall c.i.f. margin of 13 per cent seemed indicated. (It has been falling slightly since 1946). The estimate for shipping payments was arrived at by extrapolation; and similarly Government oversea expenditure was estimated by extrapolation of individual items concerned.

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[1] In addition £10 millions was added to the service sector for the effect of the new health scheme on professional earnings.

Extrapolation was again resorted to in order to estimate interest, profits and dividends going abroad. The figure for films is based on the terms of the film agreement concluded in March 1948 between Britain and the U.S.A., and is subject to a considerable margin of error. The estimate of tourist expenditure is also unsatisfactory : it is based on the provisional figure published for the first half of 1948, an allowance being made for a seasonal increase in the latter half of the year.

On the receipts side, the value of exports is given in the Board of Trade returns, though a deduction was made to allow for the usual time-lag between shipment and payment. The estimates for shipping, for interest, profit, and dividend receipts, and for travel were arrived at by using the methods outlined above in relation to payments made under these categories. The item ‘ Other’ cannot be precisely estimated, though the provisional figure for the first half of the year provides some guidance : the item comprises insurance, royalties, advertising and other commercial remittances, personal remittances, and other miscellaneous receipts, less business expenses abroad, etc.[1]

On these bases the following estimates were reached for 1948 :

	Payments	*Receipts*
Visible Trade ...	1,810	1,600
Invisible Items ...	505	535
TOTALS	2,315	2,135

ESTIMATE OF DISTRIBUTIVE SHARES

Research Group :—

Convenor : D. G. Holland (Wadh.)

Members : K. K. Apeadu (Linc.), T. C. Granville Jones (Wadh.), J. M. M. Hill (Pemb.), D. G. C. McCleland (New Coll.), P. J. Searby (Wadh.).

The main item for this group to estimate was the National Wage Bill. This was done on the following principle : if W be the Wage Bill, E the total employed wage-earners, and A the Average Earnings, then :—

$$W_{48} = W_{47} \times \frac{E_{48}}{E_{47}} \times \frac{A_{48}}{A_{47}}$$

The Employment Index used was a weighted average of the changes in employment in each industry, weighted by the wage-bill of each industry in 1947 (White Paper, Table 3), which involves the assumption that the effect of the change in an industry's total employment on the national wage-bill varies directly with that industry's share in the national wage-bill in 1947. This derived index shewed that changes in employment contributed an increase of about 2.4 per cent to the national wage-bill from 1947 to 1948.

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[1] No allowance is made for receipts under the settlement with India, which are treated implicitly here as a capital item.

For estimating the change in average earnings, two separate factors were distinguished, the effect of changes in wage-rates and the combined effect of overtime and changes in the composition of the labour force. The latter factor was estimated by dividing the weekly earnings index obtained from the Ministry of Labour earnings enquiries for April 1947, and April 1948 by the official wage-rate index for the same period. This method showed an increase of 4.4 per cent due to the combined effect of these other factors (provided the wage-rates of those covered by the enquiry moved in the same proportions as the wage-rates of those covered by the official index). This increase was then assumed to apply to the whole labour force for the period 1947–8. The wage-rate index was obtained from the annual average of the official index numbers for each month (in 1947 the old index was linked to the new one) and implied an increase of 5 per cent between the two years, so that the average earnings appeared to have increased by 9.6 per cent. This procedure appears more accurate than merely working with the earnings index.

The effects of employment and rate changes on salaries were similarly distinguished. It was assumed that salary-earners increased in the same proportion as total employment (an increase of 2.6 per cent). For salary rates a figure of 9 per cent increase in clerical salaries from 1946 to 1948 was indicated in ' Clerical Salaries Analysis '[1] (using as weights the numbers given there). The bulk of this increase will have occured in 1946–47, because of the greater flexibility of incomes then and the increase in the salaries of those being demobilised, and it was assumed that a 2 per cent rise occurred from 1947 to 1948, which was taken as applicable to all salaried employees.

For Rent the increment in total Schedule A assessments on which the estimates were based was assumed to be a function of the number of new houses built, and the increment of £2 millions from 1946 to 1947 was assumed changed to an increment of £3 millions from 1947 to 1948, in accordance with the increase in house-building. Force's pay was estimated by the Public Finance group (see below). The relative increases of income estimated by these means were as follows :—Rent, + 1 per cent; Salaries, + 5 per cent; Wages, + 12 per cent; Forces' Pay, – 33 per cent.

ESTIMATE OF CONSUMPTION

Research Group :—

Convenor : J. M. Wigley (St. E. H.)

Members : I. J. Cowan (Queen's), P. G. Hewitt (Linc.), J. M. Knowles (Magd.), R. V. Wood (Jesus).

This group had the preliminary estimates of each of the main types of Consumption expenditure on which to base their work, and the problem was one of finding a value for the fourth quarter. In the cases of Clothing and Household Goods the appropriate relatives in the Retail Trade Sales index were used. In the case of Food a quantity index with a June 1947 base was constructed from 17 quantity series of food consumption published in the Digest of Statistics. The value of food consumption in June 1947, was found by interpolation and this quantity index applied, together with the food price relative from the Interim Index of Retail Prices.[1] The result implied an increase of food consumption from the third to the fourth quarters of 1948, contrary to the usual seasonal pattern, and this was confirmed by a detailed examination of quantity relatives. Rent has a very steady trend, as has Income in Kind of H.M. Forces, to which simple extrapolation can be applied. The quantity figures for Drink and Tobacco are based on clearances through the excise authorities and appear not to be very closely linked to current consumption, and the last quarter's figure was found by extrapolation. For Fuel and Light and Miscellaneous Goods and Services it was presumed that the quantity relatives would bear the same relation to the corresponding quarter of 1947 as the third quarter relatives did, and the retail prices index was used for conversion into value terms.

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[1] Published by the Office Management Association.

In order to correct the resultant current-price values into fixed-price estimates the price indices given in the last White Paper were linked to the Interim Index of Retail Prices, taking the 1947 mid-June value of the latter to correspond to the annual average with three exceptions. For Drink and Tobacco an allowance was made for the effects of the 1947 Budgets on the prices of both drink and tobacco, and this provided a mid-June price relative of 301 (1938=100). For Fuel and Light and for Household Goods, the price indices climbed sharply in the last quarter of 1947, and a slight correction was therefore necessary to reduce the annual average to the mid-June level. Consumption estimates are given in Table IV.

TABLE IV

Personal Expenditure on Goods and Services (£ millions)

	At current prices			*At 1938 prices*		*Price Index in 1948*
	1938	*1947*	*1948*	*1947*	*1948*	*(1938=100)*
Food	1287	1995	2190	1307	1320	166
Drink and Tobacco	462	1368	1520	478	465	329
Rent	491	564	580	522	540	108
Fuel and Light	197	310	345	230	235	148
Household Goods	7288	459	505	224	230	219
Clothing	446	704	860	373	415	207
Miscellaneous Goods and Services	1100	1961	1920	1251	1165	165
Income in kind of H.M. Forces	17	60	40	39	25	166
Total	4288	7421	7960	4424	4395	181

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[1] This method involves a rather doubtful interpolation for June 1947, but it provided the correct answer for the last quarter of 1947, and hence if the interpolation is incorrect the end-1947 figure implies a seasonal factor for items not covered by the quantity relative. which would presumably also apply to the end-1948 value. Hence the accuracy of the interpolation is not very important.

For Investment this group attempted to get a rough estimate as a check on the residual. The increase during 1947 in the stocks which could be priced was calculated at about £45 millions, with a corresponding increase in 1948 of £20 millions for the same commodities. If, however, we allow for the sales of surplus stores in 1947 (£200 millions) it is likely that there was on balance substantial disinvestment in stocks, so that, allowing for increase in retail and ' pipeline ' stocks, net investment in fixed capital was probably of the order of £1,300 millions (as compared with the figure of £1,245 for total net capital formation). Estimates given in the London and Cambridge Economic Service Bulletin imply an increase of about 25 per cent in gross values,[1] or net capital formation of rather over £1,600 millions if there were on balance small stock falls, allowing for more war surplus sales. This compares with £1,610 millions obtained as a residual.

ESTIMATE OF PUBLIC FINANCE STATISTICS

Research Group :—

Convenor : A. N. Morton (St. Cath.'s.)

Members : Miss M. E. Armstrong (Som.), F. J. Bayliss (Hert.), F. Jones (St. Cath.'s), C. R. Ross (Hert.), Miss E. J. F. Watkins (St. Anne's).

For estimating the Government current expenditure on goods and services, the total Supply Issues for the calendar year, obtainable from the weekly Exchequer Returns, were taken as the point of departure. This constitutes the main item on the revenue side of the table (see Table V). In addition, it was necessary to include, on the revenue side, all government income which does not pass through the Exchequer, yet which is spent on current goods and services : *e.g.* National Insurance direct and indirect taxes, and Local Authorities' Rates.

TABLE V

Departmental and Local Authority Expenditure, 1948 (£ millions)

Sources		*Expenditure*	
Total Supply Issues	2660	Subsidies	495
National Insurance Fund		Transfer Payments*	670
Direct taxes	175		
Indirect taxes	135	Investment†	75
Income from property ...	25		
		Local Authorities' surplus ...	10
Local Authorities			
Indirect taxes	305	Nat. Ins. surplus	50
Income from property ...	10		
		Estimated Current expenditure on Goods and Services	2010
	3310		3310

*Excluding post-war income tax credits.

†Central Government investment financed from ordinary Exchequer Supply Issues, excluding for example ' below the line ' expenditure on housing.

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[1] Articles by Bowen and Barna in Nov. 1948 and Feb. 1949 issues.

On the expenditure side, it was important to exclude as far as possible items of a capital nature. In order to do this, and to trace the distribution of the Supply Issues among the various outlay categories appearing in the National Income White Papers, it was necessary to reconstruct the White Paper tables for the fiscal year from the data given in the Financial Statement. The effect of movements of departmental balances, over the Government sector as a whole, was, for lack of information, assumed to be negligible.

Expenditure on permanent, temporary, and emergency housing and on the upkeep of roads is listed among current expenditure on Local Authorities in the Financial Statement. In the National Income White Paper it would appear from a reconstruction of the 1947 figures to be included in the item ' Expenditure on new assets and the maintenance of existing assets ', in the Central Government Capital Account. For this reason, though it is classed as capital expenditure in the White Paper, this item is included in the expenditure side of the table, since it is financed out of the Supply Issues.

Wherever possible, estimates for individual items appearing in the White Paper were obtained from published official sources, *e.g.* Subsidies. In some instances, estimates were derived by extrapolation from the previous year's figure, using the best indices available, while in others, the method used was to interpolate between the current and previous year's Financial Statement estimates, in order to fit the figures to the calendar year. This latter expedient would naturally appear rough in the extreme. But it should be noted that in spite of the supplementary estimates in each of the fiscal years 1945–6, 1946–7, and 1947–8, total Civil Supply Issues were never more than 4.2 per cent in excess of the original estimate, and not less than 1.8 per cent in excess. In all cases less than one third of the total supplementary votes represented increased overall expenditure.

The Local Authorities' surplus on current account, which it was also necessary to show on the expenditure side, was obtained by extrapolation, while in the case of the National Insurance Funds account the surplus (previously substantial) was assumed to be £50m. in 1948, in view of the heavy expenditure on the National Health Service. Estimated total current expenditure of the public authorities was thus found as a residual, as shown in Table V, since we have covered all other uses of income arising on the left hand side. A fall of £160 millions in Government current expenditure between 1947 and 1948 is therefore estimated.

Most of the components necessary for computing the White Paper ' Direct Tax ' item are currently available in the weekly Exchequer returns. In the case of contributions to the National Insurance Fund, the same proportion was assumed to exist between Direct and Indirect Tax, as in the previous year, while an upward adjustment was made to allow for the new contributions of the self-employed under the new National Insurance Act. Official sources were used for all the items of Indirect Taxes, with the exception of Local Authorities' Rates, the figure for which was obtained by extrapolating from indices of rental valuation (*i.e.* Schedule A assessments), and of the proportion of rates to rental values. In estimating employers' contributions to the National Insurance Fund, allowance was made for the age and sex composition of the national labour force.

In estimating ' Pay and allowances (in cash and kind) of serving members of the Armed Forces ', a figure per head both for cash and for kind was obtained from published official information relating to 1946 and 1947. These figures were applied to the quarterly estimates of numbers in the Armed Forces, for 1948, and summed. Allowance was made for the rise in the rates of pay which came into effect during the year.

. . . .

Doubtless this year's *National Income White Paper* will be published by the time these notes appear. We are not attempting to anticipate official estimates in any way, though it was thought that preliminary unofficial estimates might usefully be published in the *Financial Times* to provide a factual background for advance discussions of budgetary policy. What was attempted was to learn more about the mechanism of the national income, and these notes are published so that points of technical interest can be passed on.

P. D. HENDERSON
DUDLEY SEERS
P. F. D. WALLIS.

TABULAR APPENDIX

EDITORIAL NOTE

The following tables illustrate the economic developments in U.S.A. and individual European countries by presenting the trend of production, prices and foreign trade in recent months compared with typical war and pre-war years.

Explanation of symbols :

... the figure is not available.
( ) figures provisional or approximate.
— figure is negligible.

TABLE I. UNITED STATES

Index Nos. 1935–39=100[1]	Monthly Averages 1941	1945	1946	1947	1948 July	Aug.	Sept.	Oct.	Nov.	Dec.
Personal Incomes, bill. $[2]	95.3	171.6	177.2	196.6	212.9	214.6	214.9	215.6	216.7	...
Consumption expenditures, bill $[3] ...	82.3	121.7	143.7	164.4	...	...	178.5	...	...	...
Dept. Store Sales—										
Value Index	133	207	264	285	316	311	312	306	287	307
Vol. Index of Farm Marketings[4] ...	116	140	139	147	144	146	170	206	176	...
Employment,[5] millions	36.2	40.0	40.7	42.5	45.1	45.5	45.9	45.9	457	...
Unemployment, millions	5.0	1.1	2.3	2.1	2.2	1.9	1.9	1.6	1.8	1.9
Building Contr. Awarded—										
Value Index	213	119	266	276	357	350	336	321	331	...
Vol. Index[6]...	183	86	168	...	167	163	156	149	154	...
Ind. Production Index—										
Durable	201	274	192	220	219	222	224	230	229	...
Non-durable	142	166	165	172	169	177	178	179	177	...
Minerals	125	137	134	149	153	159	156	158	160	...
Manuf. Orders—Index (1939=100)	203	189	211	...	246	251	265	249	250	...
Manuf. Inventories—										
Index (1939=100)	158	167	218	261	281	283	286	287	290	...
Wholesale Price Index— ...										
Farm Products	108	169	198	239	257	251	250	241	238	(232)
Foods	105	134	165	213	238	240	237	226	221	(220)
All others	110	123	135	166	186	189	189	189	189	(189)
Cost of Living Index	105	128	139	159	174	175	175	174	172	171
Factory Av. Hourly Earngs., cts. ...	73	102	108	122	133	135	136	137	137	...
Imports. Total Mill. $	279	344	410	478	558	598	558	597	550	...
from Europe, Mill. $	24	...	66	...	88	90	94	102	...	...
Exports, Total Mill. $	427	820	812	1206	1022	986	926	1020	819	...
to Europe, Mill. $	128	...	342	...	333	323	320	328	...	...

Sources: *Bureau of the Census* for Unemployment; *U.S. Department of Commerce* for Income Payments, Consumer Expenditures, Farm Marketings, Manufacturers' Orders and Inventories, and Foreign Trade; *U.S. Department of Labor* for Employment, Prices and Wages; *Federal Reserve Board* for Department Store Sales, Building Contracts and Industrial Production.

[1] All index numbers, except those of prices and of manufacturers' orders, inventories and farm marketings, are adjusted for seasonal variations.

[2] Seasonally adjusted at annual rates.

[3] Quarterly figures, seasonally adjusted at annual rates.

[4] The monthly figures are no longer seasonally adjusted.

[5] All employees in non-agricultural establishments, unadjusted figure.

[6] Value Index deflated with the (Engineering News Record) Index of Construction.

TABLE II. UNITED KINGDOM[1]

A. OFFICIAL FIGURES

	Unit	Monthly Averages 1938	1945	1946	1947	1948	1948 Sept.	Oct.	Nov.	Dec.	1949 Jan.
Production of—											
*Coal (weekly av.) ...	Mill. tons	4.4	3.5	3.6	3.8	4.0	4.1[2]	4.2	4.3	4.0[2]	4.1
Steel (weekly av.) ...	000 tons	200	227	244	240	286	297[2]	297	303	282[2]	289
Cement	000 tons	643	338	548	580	710	658	856[9]	668	720[9]	658[9]
*Bricks	Millions	650	102	287	378	383	404	396	407	386	375
Passenger Cars	Thousands	28.4	1.4	18.3	23.9	27.4	34.6[9]	26.2	25.7	28.4[9]	28.6
Comm. Vehicles ...	,,	8.7	10.2	12.2	12.9	14.2	17.3[9]	15.6	15.3	17.4[9]	15.6
Merchant Vessels[3] ...	Mill. gr. tons	0.78	1.49	1.77	1.98	1.98	2.07	2.04	2.04	1.98	2.00
Cotton Yarn (wkly. av.)[10]	Mill. lb.	23.7[11]	11.48	12.73	12.73	15.24	15.09	16.36[2]	16.46	14.95[2]	...
Rayon[12]	,,	8.52	7.09	8.97	9.90	12.34	13.07	13.45	13.66	13.00	...
Electricity	000 mill. kwh	2.0	3.1	3.4	3.5	3.9	3.6	4.0	4.4	4.7	4.8
Gas (weekly av.) ...	Mill. therms	31.9	38.9	43.1	44.4	46.2	42.1[2]	46.1	50.8	54.0[2]	55.4
*Perm. Houses[4] ...	Thousands	30.0	0.22	4.12	10.53	16.6	17.50	17.16	16.45	17.03	14.03
*Employment total[5] ...	Millions	17.9	16.4	17.4	18.6	19.1	19.2	19.2	19.2	19.2	...
*Manuf. Ind.	,,	6.8	6.8	6.6	7.1	7.3	7.3	7.3	7.4	7.3	...
*Manuf. Exports ...	,,	1.0	0.41	1.31	1.53	1.94	2.03	2.03	2.04	2.03	...
*Unemployment[6] ...	Thousands	1688	103	359	256	282	294	315	328	327	376
*Retail sales (weekly) ...	1938=100	100	116	137	155	176	176	185	194	226	...
Wholesale Prices—											
Food and Tobacco ...	,,	100	163	163	169	186	186	185	186	183	183
Ind. Prod.	,,	100	169	178	200	233	235	235	236	238	239
Consumer Goods' Prices[7]	,,	100	153	157	168	...	...	...	...	...	...
Retail Prices	June 1947=100	...	...	...	100[13]	108	108	108	109	109	109
Weekly Wage Rates ...	Sept. 1939=100	...	150	162	168	176	176	178	178	178	180
Retained Imports ...	£ Mill.	77	92	108	149	173	169	175	181	179	187
U.K. Exports	,,	39	33	76	95	132	131	140	147	146	159
Terms of Trade[8]	1938=100	100	93	95	9	8.85	89	88	87	87	...

Sources: Monthly Digest of Statistics; Ministry of Labour Gazette; Board of Trade Journal.

[1] Figures for items marked * refer to Great Britain.

[2] Average of five weeks.

[3] Tonnage under construction at end of period, 100 gross tons and over.

[4] New permanent houses completed by local authorities and private builders; excluding aluminium houses.

[5] Including employers and self-employed, but excluding Forces, Auxiliary Services, Civil Defence, Police and private domestic service. All annual employment figures refer to mid-year.

[6] Number of insured workers registered as wholly unemployed or temporarily stopped. From July 1948 onwards, all unemployed persons on the registers of Employment Exchanges. Mid-yearly (mid-July), or mid-monthly figures.

[7] Prices of consumer goods and services calculated from the annual White Papers on National Income and Expenditure.

[8] Ratio of export prices to import levels.

[9] Five week period (or 4½ week period).

[10] Excluding staple fibre, mixed and waste yarns.

[11] 1937.

[12] Excluding staple fibre.

[13] June 17th.

TABLE IIB. DERIVED ESTIMATES

				1948				
	1946	1947	1948	Av. of first half	Av. of third quarter	Oct.	Nov.	Dec.
1. Working-class Cost of Living[1] (1937–8=100) ...								
(*a*) Food[1]	...	138[1]	149	150	148–9	148–9	149	149
(*b*) All items[1]	...	161–2[1]	174	173	174–5	175	175–6	175–6
2. Middle-class Cost of Living[2] (1938=100)	...	178[2]	191	189–90	191–2	192–3	193	193
3. Seasonally corrected Coal Production† (Annual rates mill. tons)	190	197[3]	207	208	203	209	210	213
4. Seasonally corrected Inland Consumption† (Annual rates, mill. tons)	186	184[3]	192	190	192	195	196	194
5. Coal Exports and Bunkers (Annual rates, mill. tons)	9	5[3]	16	13	19	19	19	18
6. Seasonally Corrected Total Coal Consumption (Annual rates, mill. tons) (4+5)	195	189[3]	208	203	211	214	215	212
7. Seasonally corrected Coal Stock Changes (Annual rates, mill. tons) (3—6)*	—5	+8[3]	—1	+5	—8	—5	—5	+1

† Great Britain. * + = increase, — = decrease.

[1] See BULLETIN, Vol. 10, p. 140, *et. seq.* 1947 estimate is for mid-June.

[2] BULLETIN, Vol. 10, p. 225 *et seq.* 1947 estimate is for mid-June.

[3] 52-week year for comparability.

Seasonal Correction of Coal Statistics. See BULLETIN, Vol. 10, p. 272.

TABLE III. FRANCE

	Unit	Monthly Averages				1948					
		1938	1945	1946	1947	June	July	Aug.	Sept.	Oct.	Nov.
Production of—											
Coal[1]	Mill. m. tons	4.0	2.8	4.1	3.9	4.1	3.8	3.5	3.8	0.4	2.5
Electricity ...	000 Mill. kwh	1.5	1.5	1.8	2.1	2.3	2.3	2.2	2.3	2.1	2.1
Steel	000 m. tons	518	136	367	478	616	641	612	549	455	681
Cement ...	,,	296	127	281	321	487	521	488	495	471	355
Comm. Vehicles	Thousands	3.7	2.7	5.2	5.9	8.8	7.4	5.3	7.7	8.4	9.1
Passenger Cars...	,,	15.2	0.1	2.5	5.5	8.9	8.9	5.6	7.2	10.2	9.6
Cotton Fabrics...	000 m. tons	12.1	2.7	8.4	11.2	14.0	10.4	9.9	13.8	13.1	12.2
Wagon ldgs. (dly.)	Thousands	41	17	31	35	40	37	34	39	36	40
Unemployment[2] ...	,,	373.6	15.8	15.7	7.4	14.0	15.0	18.3	19.5	20.4	21.8
Wholesale Prices	1938=100	100	373	648	989	1691	1698	1783	1791	1884	1974
Retail Prices[3] ...	,,	100	393	645	1030	1529	1528	1670	1783	1844	1870
Imports	000 m. frs.	3.8	4.8	19.5	28.9	61.3	51.4		65.5	72.2	65.0
Exports	,,	2.5	1.0	8.5	17.7	44.4	35.8		42.4	44.0	43.4

Source : Bulletin de la Statistique Générale de la France.

[1] Including lignite.

[2] Unemployed on relief ; monthly figures refer to mid-month.

[3] Retail prices in Paris of 34 articles.

TABLE IV. BELGIUM

	Unit	Monthly Averages				1948						
		1939	1945	1946	1947	May	June	July	Aug.	Sept.	Oct.	Nov.
Production—												
Total Industry...	1936–38=100	95	34	80	95	105	96	96	102	107	...	...
Coal	Mill. m. tons	2.5	1.3	1.9	2.0	2.07	2.29	1.99	2.18	2.34	2.43	2.33
Steel	000 m. tons	252	61	190	241	306	231	317	352	353	372	355
Cement ...	,,	213	54	157	217	301	291	271	268	328	311	300
Electricity ...	Mill. kwh	466	377	520	601	614	590	600	635	648	697	712
Textile Ind. ...	1938=100	113	38	92	110	98	108	92	92	104	103	...
Paper Ind. ...	,,	120	26	109	132	128	136	106	126	133	146	...
Building Activity[1]	Thousands	2.7	1.1	2.4	3.0	4.3	4.7	4.0	3.8	3.9	3.5	...
Unemployment[2]	,,	195	145	67	68	94	105	129	123	124	132	144
Retail Prices ...	1936–38=100	106	329	334	343	398	397	396	400	403	394	394
Imports[3]	000 mill. frs.	1.7	1.1	4.4	7.1	7.2	7.5	6.8	6.9	7.5	7.3	6.7
Exports[3]	,,	1.8	0.3	2.5	5.1	5.7	6.5	5.5	5.7	6.5	6.7	6.4

Source : Institut National de Statistique ; Banque Nationale de Belgique.

[1] Number of units newly constructed and reconstructed (permits).

[2] Daily average of registered unemployed.

[3] Including Luxemburg.

TABLE V. NETHERLANDS

	Unit	Monthly Averages 1939	1945	1946	1947	1948 June	July	Aug.	Sept.	Oct.	Nov.
Production—											
Coal	000 m. tons	1072	424	693	842	915	958	889	895	932	936
Electricity	Mill. kwh	223	98	221	283	293	298	296	337	386	410
Bricks	Millions	84.1	7.6	45.3	60.0	80.8	77.2	75.9	83.4	89.0	95.9
Cement	000 m. tons	45.1	21.2	33.6	43.3	50.8	53.8	51.9	54.8	52.1	48.1
Butter	000 m. tons	9.0	3.2	4.4	4.4	8.4	8.7	8.1	7.6	6.0	5.1
Cheese	000 m. tons	10.1	3.1	5.4	5.4	12.8	12.2	11.8	10.2	8.9	7.6
Unemployed[1] ...	Thousands	235.6	...	53.1	30.7	21.2	22.0	24.8	25.9	...	...
Retail trade[2] ...	1938=100	108	...	181	242	270	297	255	269	318	...
Cost of living ...	1937=100	102	(176)	(192)	199	207	207	203	206	205	208
Wage rates in Industry[3]	1938–39=100	104	135	168	173	180	181	181	181	...	...
Imports[4]	Mill. fl.	130	...	197	357	443	416	412	447	481	405
Exports[4]	,,	84	...	68	158	245	213	213	239	311	268

Source : Centraal Bureau voor de Statistiek ; Rotterdamsche Bankvereeniging ; United Nations, Monthly Bulletin.

[1] Registered wholly unemployed excluding public relief workers.

[2] Retail sales throughout the country. Revised Series.

[3] Hourly rates for men in manufacturing, mining and construction.

[4] Excluding silver bullion and specie.

TABLE VI. DENMARK

Index Nos 1938=100	Unit	Monthly Averages 1939	1945	1946	1947	1948 June	July	Aug.	Sept.	Oct.	Nov.
Production											
Industrial[1] ...	Index	105	74	101	116	137	97	135	141	142	143
Animal prod.	,,	101	68	76	75	80	71	62	65	63	61
Butter	000 m. tons	15.2	11.0	11.7	10.4	12.6	11.8	10.6	10.4	10.2	9.3
Meat (pork)	,,	27.4	15.1	16.3	16.9	18.0	13.3	10.5	13.2	10.1	12.9
Electricity[2] ...	Mill. kwh	69[3]	76	98	115	119	111	131	137	147	158
Wholesale prices ...	Index	105	190	188	207	229	230	231	231	231	231
Cost of living ...	,,	101	159	158	163	...	167	...	...	167	...
Imports	Mill. kr.	145	58	237	257	283	311	260	333	343	343
Exports	,,	132	75	135	193	199	226	200	216	276	250

Source : Danmarks Statistics, Statistiske Efterretninger ; United Nations, Monthly Bulletin.

[1] Revised Series. [2] Consumption. [3] 1938.

TABLE VII. NORWAY

Index Nos. 1938=100	Unit	Monthly Averages 1939	1945	1946	1947	1948 July	Aug.	Sept.	Oct.	Nov.	Dec.
Ind. Prod.... ...	Index	107	69	100	115	80	123	130	128	134	...
Electricity gen. ...	Mill. kwh	851	820	938	938	929	949	1052	1132	1218	...
Retail turnover	Value Ind.	105	120	182	223	217	202	218	228	...	...
Wholesale prices ...	Index	102	178	170	176	182	181	181	181	182	182
Cost of living ...	Index	102	156	159	160	159	158	158	157	157	157
Imports	Mill. kr.	114	100	183	318	269	282	340	402	355	...
Exports	,,	67	27	100	151	144	149	194	183	186	...

Source : Central Bureau of Statistics ; Bank of Norway.

TABLE VIII. SWEDEN

Index Nos. 1939=100	Unit	Monthly Averages 1939	1945	1946	1947	1948 June	July	Aug.	Sept.	Oct.	Nov.
Ind. Production[1] ...	Index	100	113	136	139	143	142	142	144	145	146
Ind. Employment[2]	,,	105	119	124	124	...	124	...	...	...	...
Unemployment[3]	Per cent	9.2	4.5	3.2	2.8	1.9	1.9	1.7	1.6	1.9	...
Steel Production	000 m. tons	99	100	101	99	104	64	90	119	103	116
Cost of living ...	Index[5]	104	145	146	150	158[4]	...	...	160[4]	...	...
Imports	Mill. kr.	208	90	282	431	423	449	411	385	360	370
Exports	,,	157	146	212	268	355	317	308	355	380	409

Source : Index, Svenska Handelsbanken ; Quarterly Review, Skandinaviska Banken ; United Nations, Monthly Bulletin.

[1] Revised Series. [2] Including mining. [3] Unemployment in Trade Unions (percentage).

[4] Refers to end of quarter. [5] 1937=100.

TABLE IX. SWITZERLAND

Index Nos. 1938=100	Unit	Monthly Averages 1938	1945	1946	1947	1948 June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Employment—												
All Industries ...	Quart. Index	100	110	123	134	137[5]	...	...	136[6]	...	...	...
Building	,,	100	89	108	119	142[5]	...	...	134[6]	...	...	...
Metal Ind. ...	,,	100	122	137	147	152[5]	...	...	152[6]		...	...
Chemical Ind. ...	,,	100	130	157	174	179[5]	...	...	179[6]	...	...	...
Cotton	,,	100	76	87	97	101[5]	...	...	100[6]	...	...	...
Food Ind. ...	,,	100	106	120	129	133[5]	...	...	133[6]	...	...	...
Electricity gen.[1] ...	Mill. kwh	448	665	696	650	775	816	804	807	704	668	...
Building permits :												
New Flats... ...	Numbers	703	752	1043	1261	852	1152	630	945	779	567	865
Factories[2] ...	,,	93	167	267	281	233[5]	...	...	215[6]	...	...	...
Tourism[3]	Thousands	630	264	506	703	798	1171	1491	801	435	318	...
Cost of living[4] ...	Index	100	152	152	158	163	163	162	163	163	165	164
Imports	Mill. frs.	134	102	285	402	477	380	345	324	348	371	420
Exports	,,	110	123	223	272	289	280	253	290	327	320	373

Source : Schweiz. Nationalbank ; Departement Fédéral de l'Economie Publique.

[1] Public power stations.

[2] Including extensions and structural changes.

[3] Number of nights spent by foreign tourists in Swiss hotels and sanatoria (000).

[4] August 1939=100.

[5] Monthly average, 2nd quarter.

[6] Monthly average, 3rd quarter.

TABLE X. ITALY

	Unit	Monthly Averages 1939	1945	1946	1947	1948 May	June	July	Aug.	Sept.	Oct.
Electricity Prod.	000 m. kwh	1.3	0.9	1.3	1.5	1.7	1.7	1.8	1.7	1.8	1.7
Steel Prod. ...	000 m. tons	190	33	96	142	181	194	192	166	189	178
Coal Imports ...	000 m. tons	1100[1]	...	353[2]	749	564	809	855	724	742	640
Unemployment ...	Millions	...	...	1.7	2.0	2.4	2.3	...	...	...	1.8
Cost of living ...	1938=100	...	...	...	4575	4874	4835	4601	4792	4910	4838
Imports[3]	000 m. lire	0.9	...	7.6	77.5	82.1	74.4	64.5	66.3	59.5	57.4
Exports[3]	,,	0.9	...	5.4	28.3	40.1	43.8	50.2	50.8	45.2	51.4

Source : Instituto Centrale di Statistica ; United Nations Monthly Bulletin of Statistics.

[1] Average 1935, 1937 and 1938.

[2] Average April–December.

[3] Excluding silver specie.

TABLE XI. FINLAND

Index Nos. 1939=100	Unit	Monthly Averages 1939	1945	1946	1947	1948 June	July	Aug.	Sept.	Oct.	Nov.
Production—											
Home Ind.[1] ...	Index	100	56	75	91	...	...	...	...	...	...
Export Ind.[1] ...	,,	100	51	69	84	100	86	88	103	...	...
Electricity ...	Mill kwh	259	247	244	233	217	215	221	239	255	254
Wholesale Prices	Index	100	365	571	690	921	940	935	934	929	926
Cost of living ...	1938·9[2]=100	101	282	450	584	773	809	816	812	810	805
Imports	Mill. Mark	631	568	2023	3914	7006	5938	5397	5508	5526	5961
Comm. Exports ...	,,	643	436	1921	3769	5201	6349	5407	5944	5685	5509
Reparation Deliv.	,,	...	685	731	867	1879	344	405	1017	1045	

Source : Unitas, Quarterly Review of Trade Conditions in Finland ; Monthly Bulletin, Bank of Finland.

[1] Volume index. [2] August 1938—July 1939.

TABLE XII. POLAND

	Unit	Monthly Averages 1938[1]	1945	1946	1947	1948 April	May	June	July	Aug.	Sept.
Production—											
Coal	Mill. m. tons	3.2	2.3	3.9	4.9	5.8	5.0	5.8	6.1	6.0	6.1
Pig Iron	000 m. tons	74	21	61	72	94	94	92	91	88	...
Steel	,,	120	45	102	132	164	148	159	162	163	...
Cement	,,	143	33	117	127	168	190	191	192	190	178
Glass	,,	2.1	...	...	5.1	4.8	5.6	5.6	6.3	6.5	6.9
Paper	,,	17.1	3.4	12.4	17.2	20.6	16.6	21.1	21.6	21.3	21.1
Electricity	Mill kwh	319	418	476	551	587	554	562	587	608	618
Cost of living[2]	Index[2]	1	...	95	123	132	132	133	133	133	133

Source : Central Statistical Office of the Republic of Poland.

[1] Pre-war frontiers.

[2] Retail prices of goods and services purchased by a wage-earner's family in Warsaw city (prices of rationed articles are not included). Base 1938=1.

TABLE XIII. CZECHOSLOVAKIA

	Unit	Monthly Averages 1939	1945	1946	1947	1948 July	Aug.	Sept.	Oct.	Nov.	Dec.
Production—											
Coal	000 m. tons	1398	952	1178	1351	1405	1387	1385	1449	1621	1497
Electricity ...	Mill. kwh	380	369	464	555	528	600	629	693	720	729
Steel	000 m. tons.	191	79	139	190	216	211	219	231	224	...
Pig Iron ...	000 m. tons	134	48	80	119	141	137	134	149	138	...
Wholesale Prices[1]	Mar. 1939=100	...	165	288	303	320	321	322	319	321	325
Cost of living[2] ...	1939=100	100	170	309	295	293	286	286	290	293	294
Imports	Mill. Kr.	915[3]	...	859	2386	3109	2463	2280	2420	2363	3475
Exports	,,	998[3]	...	1195	2384	3088	2576	3126	3503	3365	4760

Source : Zivnostenka Banka, U.N. Monthly Bulletin. Statistical Bulletin of Czechoslovakia.

[1] Bohemia, Moravia and Silesia ; on the first day of each month.

[2] At Prague, manual worker's family (March 1939=100) ; in the first week of the month.

[3] 1937.

TABLE XIV. HUNGARY

	Unit	Monthly Averages 1939	1945	1946	1947	1948 May	June	July	Aug.	Sept.	Oct.
Production—											
Hard Coal ...	000 m. tons	192	58	60	88	76	88	104	83	101	118
Lignite ...	,,	784	298	469	646	608	704	708	660	747	891
Pig Iron ...	,,	34	1	13	25	33	27	31	34	...	
Petroleum ...	,,	12	55	57	48	40	39	38	38	...	...
Cost of living[1] ...	1937=100	99	...	...	462	522	490	461	454	434	452
Imports	Mill. fl.	142	...	31	122	163	143	144	159	166	159
Exports	,,	175	...	35	87	124	148	144	100	116	202

Source : Office Central Hongrois de Statistique.

[1] At Budapest.

TABLE XV. BULGARIA

Index Nos. 1939=100	Unit	Monthly Averages 1939	1945	1946	1947	1948 May	June	July	Aug.	Sept.	Oct.
Industrial Prod.	Index	100	112	115	133	149	164	167	166	198	213
Investmt. Goods	,,	100	88	115	132	...	...	...	...	...	...
Food Ind. ...	,,	100	96	99	81	...	...	...	...	...	...
Other Cons. Ind.	,,	100	118	118	144	...	...	...	...	...	...
Electy. gen. ...	Mill. kwh	22	33	36	40	44	44	45	47	47	48
Wholesale prices ...	Index	100	550	627	714	...	...	...	...	...	...
Cost of living ...	,,	100	509	572	637	...	...	...	...	...	...
Imports	Mill. leva	433	485	1460	1785	3210	...	...	...	...	...
Exports	,,	505	1033	1245	2044	2078	...	...	...	...	...

Source : Direction Générale de la Statistique, Bulletin Mensuel (Sofia).

TABLE XVI. GERMANY (BIZONAL AREA)

	Unit	Monthly Averages 1936	1946	1947	1948 May	June	July	Aug.	Sept.	Oct.	Nov.
Ind. Prod. ...	1936=100	100	33	38	47	51	61	65	70	74	75
Prod. Goods[1] (Br. Zone) ...	,,	100	36	39	(45)	(49)	...	...	...	...	...
Cons. Goods (Br. Zone) ...	,,	100	21	23	(30)	(32.5)	...	...	...	...	...
Production of—											
Hard Coal (Br. Z.)	Mill. tons	9.7	4.5	5.9	5.9	7.4	7.8	7.5	7.6	7.9	7.7
Steel Ingots ...	000 tons	1187	207	246	324	378	457	510	572	610	599
Cement ...	,,	626	188	222	375	401	461	506	519	585	566
Potash	,,	44.0	23.7	26.8	30.6	38.3	42.0	46.5	50.4	49.9	46.2
Cotton Yarn ...	,,	19.5	3.5	5.2	6.2	7.1	8.1	9.1	10.1	11.3	11.1
Elec. Gen.[2] ...	000 kwh	...	1218	1338	1389	1358	1380	1464	1628	1777	1784
Import arrivals[3]	Mill. $	...	54	61	138	160	136	154	158	83	103
Export deliveries[3]	,,	...	12	19	47	40	47	58	61	63	67

Source : Monthly Statistical Bulletin of the Control Commission for Germany (British Element).

[1] Incl. investment goods (iron and steel, foundry products, vehicles, building materials, etc.) and producer goods for general requirement (coal, oil, gas, electricity and chemicals).

[2] Generation by P.U. stations.

[3] From preliminary survey.

TABLE XVII. AUSTRIA

	Unit	Monthly Averages 1937	Monthly Averages 1946	Monthly Averages 1947	1948 May	1948 June	1948 July	1948 Aug.	1948 Sept.	1948 Oct.	1948 Nov.
Ind. Production—											
Prod. Goods ...	1937=100	100	...	84	125	141	145	149	144	141	137
Cons. Goods ...	,,	100	...	42	61	69	63	67	71	72	71
Production of—											
Hard Coal ...	000 m. tons	19.2	9.0	14.8	12.8	14.2	14.1	14.3	14.6	15.1	16.9
Lignite ...	,,	270	200	236	240	273	283	270	278	286	296
Pig Iron ...	,,	32.4	4.8	23.2	49.2	55.3	55.8	56.1	57.1	56.1	53.0
Steel	,,	54.1	15.6	29.7	42.4	59.2	62.3	60.9	57.9	58.8	55.5
Cement ...	,,	35.8	32.6	25.2	60.3	73.0	67.1	71.5	84.5	73.7	84.4
Electricity gen.	Mill. kwh	152	242	270	355	370	410	440	361	319	289
Cost of living[1] ...	March '38=100	...	107	211	309	308	304	304	303	359	366
Imports	Mill. Schill.	121.1	20.9	99.4	178.8	211.6	222.3	222.4	231.2	219.5	238.0
Exports	,,	101.4	18.3	70.2	163.5	161.2	173.8	159.3	183.1	191.2	219.0

Source : Monatsberichte des Oest. Institutes für Wirtschaftsforschung.

[1] In Vienna. Revised index of the Institut für Wirtschaftsforschung : 1 old Schilling (S 1937)=1 new Schilling (S 1948).

Omitted from December issue and now inserted]

TABLE VI. *Coalmining and Supplies*

A. Hard Coal Output Monthly Figures or Averages[1]

Million metric tons ...	Average 1946	Average 1947	1948 May	June	July	Aug.	Sept.	Oct.	Nov.	Last month As % of m. av. 1937
U.S.A.[2]	44.9	51.1	55.7	52.3	48.1	53.4	50.9	54.8	...	(146)
United Kingdom ...	16.1	17.0	16.0	21.3[4]	14.3	14.3	20.7[4]	17.2	(18.3)	(90)
West Germany[3] ...	4.5	5.9	5.9	7.4	7.8	7.5	7.6	7.9	7.7	
France	3.9	3.8	4.7	5.0	5.0	4.6	4.8	1.6	3.8	67
Saar	0.7	0.9								79
Belgium	1.9	2.0	2.1	2.3	2.0	2.2	2.3	2.4	2.3	94
Holland	0.7	0.8	0.8	0.9	1.0	0.9	0.9	0.9	0.9	78
Poland	3.9	4.9	5.0	5.8	6.1	6.0	6.1	6.3	6.5	119
Czechoslovakia ...	1.2	1.4	1.4	1.5	1.4	1.4	1.4	1.5	...	(114)

B. Total Imports of Solid Fuels including Bunkers (ton for ton). Monthly Figures of Averages

Thousand metric tons	Average 1946	Average 1947	1948 May	June	July	Aug.	Sept.	Oct.	Nov.	Last month as % m. av. 1937
France	867	1283	1298	1826	1847	1817	1500	1203	1223	49
Belgium	262	462	134	177	154	67	142	135	124	18
Holland	268	350	240	344	384	349	350	393	252	33
Luxembourg ...	154	187	218	216	302	282	254	286	281	89
Norway	157	203	160	154	225	216	189	151	138	48
Denmark	314	365	249	271	296	379	361	276	243	48
Sweden	287	496	587	674	709	574	496	484	550	74
Switzerland ...	128	210	225	267	207	192	185	177	217	75
Italy	471	749	564	809	971	724	743	640	...	(60)
Finland	68	132	290	292	254	203	228	232	219	118
Portugal	48	76	72	76	55	67	107	86	53	47
Austria	...	...	...	...	...	...	383	383	383	(135)
Czechoslovakia ...	...	...	...	...	202	215	184	141	...	(117)

C. Exports of Solid Fuels excluding Bunkers (ton for ton). Monthly Figures or Averages.

Thousand metric tons	Average 1946	Average 1947	1948 Mar.	Apr.	May	June	July	Aug.	Sept.	Last month as % of m. av. 1937
U.S.A.	4105	5919	2968	1567	4932	5721	5142	5677	...	(492)
Thereof to Europe[6] ...	1370	2811	2288	861	926	1711	1930	1745	1280	...
U.K.	385	94	436	771	1039	1156	1377	1086	1209	33
West Germany[3]	972	880	1517	1222	1155	1599	1676	1587	1579	51
France	32	38	42	43	73	61	73	94	...	(43)
Saar[5] ...	119	115	27	38						
Belgium ...	78	172	128	93	137	139	120	95	83	16
Holland... ...	36	48	73	93	86	85	68	93	77	14
Poland ...	1277	1900	2350	2548	2400	2501	2732	2590	2671	...
Czechoslovakia	55	131	188	256	245	257	260	234	234	55

Source: European Coal Organisation; United Nations Monthly Bulletin of Statistics. Current Business (U.S.A.).

[1] Calendar months.

[2] Including a small quantity of lignite.

[3] British Zone.

[4] Five weeks; other months four weeks.

[5] Figures for 1946 and 1947 include exports to France.

[6] Reported arrivals of solid fuels in Europe fromU.S.A.